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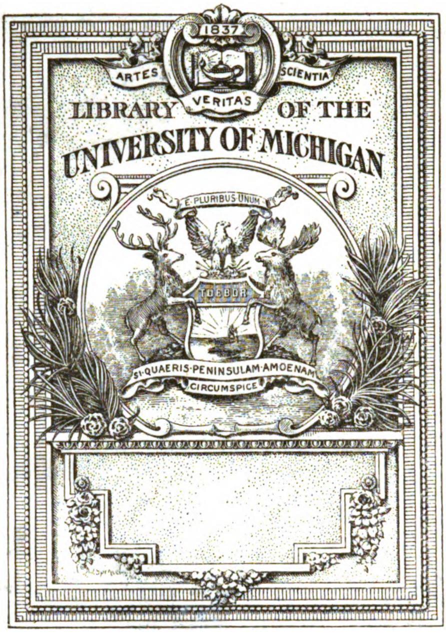

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THIRD ANNUAL REPORT

OF THE

STATE BOARD OF HEALTH

OF

COMPLIMENTS OF THE

INDIANA STATE BOARD OF HEALTH.

MEMBERS.
SAM'L R. SEAWRIGHT, M. D., Pres't, Lafayette.
WM. LOMAX, M. D., Marion.
W. A. FRITSCH, M. D., Evansville.
S. S. BOOTS, M. D., Greenfield.
C. N. METCALF, M. D.,
Secretary and Executive Officer, Indianapolis.

anitary

MEMBERS:

J. W. COMPTON, M. D., President . . . . Evansv
WILLIAM LOMAX, M. D . . . . Marion.
J. M. PARTRIDGE, M. D. . . . . South Be
W. W. VINNEDGE, M. D . . . . Lafayette.
E. S. ELDER, M. D., Secretary and Executive Officer. . . Indianapoli

TO THE GOVERNOR.

INDIANAPOLIS:
WM. B. BURFORD, CONTRACTOR FOR STATE PRINTING.
1885.

THIRD ANNUAL REPORT

OF THE

STATE BOARD OF HEALTH

OF

INDIANA,

FOR THE

FISCAL YEAR ENDING OCTOBER 31, 1884,

Together with the Third Annual Report of the Bureau of Vital and Sanitary Statistics, by E. S. Elder, M. D., Superintendent and Secretary of the Board.

MEMBERS:

J. W. COMPTON, M. D., President	Evansville.
WILLIAM LOMAX, M. D	Marion.
J. M. PARTRIDGE, M. D.	South Bend.
W. W. VINNEDGE, M. D	Lafayette.
E. S. ELDER, M. D., Secretary and Executive Officer.	Indianapolis.

TO THE GOVERNOR.

INDIANAPOLIS:
WM. B. BURFORD, CONTRACTOR FOR STATE PRINTING.
1885.

RESOLUTION OF THE BOARD RELATIVE TO PAPERS PUBLISHED IN ITS ANNUAL REPORT.

Resolved, That no papers shall be published in the Annual Report of this Board except such as are ordered or approved for purposes of such publication by a majority of the members of the Board; and that any such paper shall be published over the signature of the writer, who is entitled to the credit of its production, as well as responsible for the statements of facts and opinions expressed therein.

State of Indiana,
Executive Department.

Received December 5, 1884, examined by the Governor, and transmitted to the Secretary of State to be filed and preserved in his office and published, pursuant to the order of the Commissioners of Public Printing.

FRANK H. BLACKLEDGE,
Private Secretary.

Office of Auditor of State,
Indianapolis, December 15, 1884.

I have examined the financial statement of the Third Annual Report of the State Board of Health and find it to correspond with the records of this office.

JAMES H. RICE,
Auditor of State.

Received the foregoing report December 15, 1884.

WM. R. MYERS,
Secretary of State.

165549

BOARD OF HEALTH REPORT.

To Hon. Albert G. Porter,
Governor of the State of Indiana:

Sir—In accordance with the provisions of the law establishing a State Board of Health, approved March 7, 1881, and requiring annual reports to your Excellency concerning the work, the expenses and the needs of that Department, we have the honor to present to you the Annual Report of the Board for the year ending October 31, 1884, together with the report of the Superintendent of the Bureau of Vital and Sanitary Statistics for the year ending September 30, 1884, being the Third Annual Report of the Bureaus of Public Health and Vital and Sanitary Statistics.

The object of the following report is, therefore, to place before you a roster of the various sanitary authorities and associations throughout the world; a financial exhibit of the work and condition of the Board; an inventory of the property belonging to the same; a list of books and publications added to the library, and of publications by the Board during the current twelve months; an inventory of the supplies on hand; an outline of the work of the Board during the period for which this report is made; verbatim reports from the several local health officers of the State, together with statistical data so tabulated and arranged as to be of great benefit to the student of public health, and found in a series of statistical tables of the returns of marriages, births, deaths, and epidemic and contagious diseases, thus furnishing to the student an index of the hygienic condition and wants of our State; a list of physicians and accoucheurs throughout the State. We beg leave to call special attention to a series of interesting and instructive papers, contributed by gentlemen of recognized ability and worth in the several professions and incorporated herein, upon sanitary, hygienic, and other subjects connected with public health. Throughout the following pages will also be found such suggestions, observations and deductions as the Secretary of the Board deemed of sufficient importance to incorporate herein, together with recommendations for future legislation upon the subjects of sanitation and hygiene, which the Board of Health unanimously recommend.

ADDITIONS TO OUR LIBRARY.

In view of the fact that our State possessed no collection of authorities on Sanitation, Hygiene, Sanitary Engineering, Diseases of Domestic Animals, or other works relating to public health, and as such works are in constant demand by health officers and physicians, as well as other persons desiring to pursue investigations of sanitary subjects and matters of public health, the Board authorized its secretary to expend such amounts as might be spared from the annual appropriation in the purchase of books for the library of the Board.

By the exercise of rigid economy there has been saved and expended the sum of three hundred and twenty-three dollars and eighty-eight cents ($323.88), and the Board now has a collection of books that will prove of great value to parties interested therein. According to the rule adopted by the Board, these works will be loaned to responsible parties who are investigating subjects connected with the department, or who design to use them in the preparation of articles for publication, or to be used in discussions before societies, conventions and associations, having for their object the advancement of public health. The following is a list of the works purchased:

AMERICAN HEALTH PRIMERS (12 VOLS.), TITLES AS FOLLOWS:

Brain Work and Overwork	Wood.
Eyesight and How to Care for It.	Harlan.
Hearing and How to Keep It	Keen.
Long Life and How to Reach It	Richardson.
Our Homes	Hartshorn.

Sea Air and Sea Bathing	Packard.
School and Industrial Hygiene	Lincoln.
Skin, Health and Diseases	Bulkley.
Summer and Its Diseases	Wilson.
The Mouth and the Teeth	White.
The Throat and the Voice	Cohen.
Winter and Its Dangers	Osgood.

APPLETON'S HEALTH PRIMERS (8 VOLS.).

Baths and Bathing..................................
Exercise and Training..........................
Personal Appearances...........................
Premature Death. Its Promotion or Prevention ....
The House and Its Surroundings.............
The Heart and Its Functions..................
The Nervous System.............................
The Skin and Its Troubles.....................

ANIMALS AND THEIR DISEASES.

Actinomykosis	Fleming.
Animal Diseases and their Relation to Public Health	Billings.
Animal Plagues	Fleming.
Contagious Diseases of Cattle	Fleming.
Contagious Diseases of Domestic Animals, 5 vols., viz.: 1879–80–81–82–83	U. S. Bureau of Domestic Animals.
Diseases of Live Stock	Teller.
Human and Animal Variola	Fleming.
Lung Plague Among Cattle	Law.
Veterinary Science, 2 vols	Williams.

BACTERIA.

Bacteria	Gradle.
The Bacteria	Maguire.

CHOLERA.

Cholera	McPherson.
Cholera, Asiatic, History of	Macnamara.
Cyclopædia, vols. 1 to 8	Johnson.

DRAINAGE.

Agricultural Drainage	Denton.
Drainage	Gerhardt.
Farm Drainage	French.
Our Homes	Murphy.

FOOD.

Food and Poisons	Blythe.

HYGIENE.

Bazar Book of Health	Harper.
Bible Hygiene	By a Physician.
Hand Book of Hygiene	Wilson.
How to Live	Wilson.
Hygiene and Public Health (2 vols.)	Buck.
Hygiene and Laws of Health	Corfield.
Maintenance of Health	Fothergill.
Manuel of Hygiene	Parkes.

PREVENTIVE MEDICINE.

Eyesight, Good and Bad	Carter.
Dangers to Health	Teale.
Preventive Medicine	Richardson.
Seven Sources of Health	Strange.

SANITARY SCIENCE.

American Sanitary Engineer	
Diseases and Putrescent Air	Rowan.
Drainage for Health	Wilson.
Hand Book of Sanitary Science	Marsh.
House Drainage and Water Sewer	Bayles.
House Drainage	Gerhardt.

House Sanitation	Denton.
Mechanics of Ventilation	Rafter.
Sanitary Care and Treatment of Children	Anderson, Jacobi and Others.
Sanitary Construction of Dwellings	Corfield.
Sanitary Condition of Houses	Waring.
Sanitary Drainage	Waring.
Sanitary Engineering	Latham.
Sanitary Plumbing	Helyer.
Sanitarian, The. (vols. 1 to 13.)	Bell.
Steam Heating	Waldon.
Simplicity in Sanitation	Black.
Ventilation and Warming	Drysdale and Hayward.
Ventilation	Leeds.
Ventilation	Billings.
Ventilation of Buildings	Butler.

SEWERS AND SEWAGE.

Disposal of Sewage	Robinson.
Sewers and Drains	Adams.
Sewer and Gases	DeVarona.
Sewer Gas and Its Dangers	Brown.
Sewage and Its Utilization	Corfield.

SEPULTURE.

Sepulture	Wicks.

SMALL-POX.

Essentials of Vaccination	Hardway.
Report of Commissioners on Small-pox and Fever Hospitals	London.
Vaccination	Edwards.
Vaccination	Seaton.

SUICIDE.

Suicide	Morselli.
Suicide	O'Dea.

TYPHOID FEVER.

Enteric Fever	Welch.
Typhoid Fever	Budd.

WATER.

Guide to Examination of Water	MacDonald.
Potable Water	Folkhard.
Sanitary Examination of Water	Fox.
Water	Parry.
Water Analysis	Frankland.
Water and Water Supply	Corfield.
Water Supply	Nichols.

ZYMOTIC DISEASES.

Contagious Diseases	Morgan.
Consumption, Contagiousness of	Yeo.
Common Nature of Epidemics	Smith.
Diphtheria	Jacobi.
Diphtheria	Semple.
Epidemics of the Middle Ages	Hecker.
Erysipelas and Child-bed Fever	Minor.
History of Epidemics	Bascom.
Hospitalism and Zymotic Diseases	Kennedy.
Inquiry into Physical Causes of Epidemics	Howe.
Malaria	Edwards.
Relation of Micro-Organism	Belfield.
Remote Causes of Epidemics	Parkin.
Scarlatina Statistics	Minor.
Syphilis and Marriage	Fournier.
The Great Social Evil	Logan.
Tuberculosis in Man	Bodine.
Tuberculosis	Sattler.
Yellow Fever, Memphis Epidemic	Keating.
Zymotic Diseases	Wolf.

MISCELLANEOUS.

Alcohol and Tobacco	Miller and Lizar.
Alcoholic Inebriety	Parrish.
Aristology, or Art of Dining	Walker.
Art of Prolonging Life	Hufland.

Causes of Color Among Races	Sharer.
Color Blindness	Jeffries.
Diseases of Interior Valley of N. A	Drake.
Drugs that Enslave	Kane.
Floating Matter	Tyndale.
Hospitals and Infirmaries	Oppert.
Human Faculty and Its Development	Galton.
Human Body	Martin.
Intermarriage	Walker.
International Health Exhibition, Proceedings of	London.
Labor Among Primitive People	Engleman.
Legal Medicine (2 vols.)	Tedy.
Management of Children	Ellis.
Medical Nursing	Anderson.
Medical Economy	Fort.
Mineral Springs	Walton.
Nurses Companion	Culingworth.
Philosophy of Marriage	Ryan.
Physical Education	Oswald.
Public Health, Proceedings of American Association (vols. 1 to 9)	
The Black Arts of Medicine	Jackson.
The Jukes	Dugdale.
Railroad Accidents. Notes	Adams.

ADDITIONS TO LIBRARY BY GIFT AND EXCHANGE.

The following books and publications have been added to the Library by gift and exchange:

U. S. Marine Hospital Service Reports, 1875, '80, '81, '83.

Hand-Book for Ship's Medicine Chest, 1881.

Preliminary Report of Yellow Fever Epidemic, 1882.

Bulletins of the Public Health, 1881.

Report of Secretary of Treasury on Epidemic Fund, 1884.

Answer of the Supervising Surgeon General to National Board of Health, 1884.

Report of Committee on Public Health to the House of Representatives and H. B. 2785, 1884.

Report of New York City Health Department, 1874, '75, '76, '77, '78, '79.

Official Army Register, 1884.

Thirty-Fifth Annual Report Indiana Hospital for the Insane, 1883.

Fourth Annual Report State Health Board of Connecticut, 1881.

Fifth Annual Report State Health Board of Connecticut, 1882.

Contagious Diseases of Swine and Other Animals, 1880 and 1882.

Tenth U. S. Census, 1880. (Unabridged, 8 vols.)

Sixth Annual Report State Board of Rhode Island, 1883. Parts 1, 2 and 3.

Quarantine and Operations of Louisiana Board of Health, 1883.

Sixth Annual Report State Board of Health of Connecticut, 1883.

Fifth Annual Report State Board of Health of Illinois, 1883.

Thirteenth Annual Report Geological Department of Indiana (Collett), 1883.

First Annual Report State Board of Health of New York, 1880.

Second Annual Report State Board of Health of New York, 1881-82.

Third Annual Report State Board of Health of New York, 1883.

Second Annual Report State Board of Health of Ontario, 1883.

First Annual Report State Board of Health of Ontario, 1882.

Fourth Annual Report State Board of Health of New York, 1884.

Report of Treasury Cattle Commission for 1882.

Report of Commission of Education, 1882-83.

Report of Smithsonian Institute, 1882.

Report of Paris Electrical Exhibition, 1881.

Professional Notes, Engineer's Department, U. S. A., 1884.

Proceedings of Semi-Annual Meeting Missouri S. B. of H., 1884.

Crop Bulletin of Manitoba, No. 8, 1884.

Proceedings of the Kentucky State Sanitary Council, 1884.

Proceedings of Surgeons W., St. L. & P. Ry., 1882, '83, '84.

Proceedings of New Orleans Sanitary Conference, June 2, 3 and 4, 1884.

Public Health Commissions of Illinois and Sanitary Memorandum.

Eleventh Annual Report State Board of Health of Michigan, 1883.

Laws of Michigan Relating to Public Health.

Proceedings of Sanitary Convention at Iona, Michigan, December 13 and 14, 1883.

Circular of Information of the Bureau of Education, Nos. 4 and 5, 1884.

Sanitary Control of the Food Supply of New Jersey.

The Facts About the New Jersey Milk Adulteration Act.

The Northern Sugar Industry, H. W. Wiley, 1883.

Present Knowledge Respecting Diphtheria in Michigan, 1883.

Forty-Second Report of the Legislature of Massachusetts Relating to the Registry of Marriages, Births and Deaths for 1883.

Statutes of Massachusetts Relative to Adulteration of Food and Drugs, 1884.

Diseases of Swine and Other Domestic Animals, 1879.

Contagious Diseases of Swine and Other Domestic Animals, 1880.

Reports of Chief Signal Officer, 1871, '72, '77, '79, '80, '81.

Report of the National Board of Health, 1883.

Report of the Health Officer, District of Columbia, 1883.

Proceedings of the Ninth, Tenth, Eleventh, Twelfth, Thirteenth, Fourteenth, Fifteenth and Sixteenth Sessions, Annual, of the Nebraska Medical Society.

Transactions of the Indiana State Medical Society, 1884.

The Dwelling and Its Surroundings, F. W. Hatch, M. D.

PUBLICATIONS BY THE BOARD.

The list of books, pamphlets, circulars and papers, issued by the Board during the year, is as follows:

One hundred copies of the First Annual Report of the Board.

Twenty-five hundred copies of the Second Annual Report of the Board.

One hundred copies of the proceedings of the Sanitary Conventon at Anderson.

One thousand copies of the Rules, Regulations and Suggestions of the Board.

Twelve thousand 8-page Preventable Disease pamphlets.

Three hundred circulars to county, city and town health officers, concerning surveys of school-houses, jails, poor-houses and other eleemosynary institutions.

Twelve thousand blanks for sanitary surveys of school-houses.

One hundred blanks for sanitary surveys of poor-houses.

One hundred blanks for sanitary surveys of prisons.

Forty blanks for special reports on small-pox.

Forty-five blanks for special reports on diphtheria.

Fifty-three blanks for special reports on scarlatina.

Forty-two blanks for special reports on typhoid fever.

Eight hundred programmes for Sanitary Convention at Anderson.

Eight hundred programmes for Sanitary Convention at Greensburg.

One hundred circulars to county health officers, concerning list of physicians and postoffice address.

One thousand hot-weather disease circulars.

One thousand special precautionary cholera circulars.

Four hundred special cholera circulars to railroad officials and hotel keepers.

Sixteen hundred special circulars to health and school officers regarding sanitary condition of school-houses and schools.

Five thousand circular letters and orders to county health officers with reference to marriage, birth and death reports.

PROPERTY OF THE BOARD.

The property belonging to the Board and now in use, in the office, is embraced in the following list:

One office desk.
One small writing desk.
Two tables.
One ruling desk, rules, pencils, etc.
Two walnut book-cases.
One filing case.
One case of drawers.
Three office chairs.
Eleven walnut chairs.
One stool.

One step-ladder.
One hat-rack.
Carpets for two rooms.
Matting for one room.
One washstand, bowl, pitcher and looking glass.
One dozen towels, comb and brush.
Four inkstands.
One copying press.
One postoffice scales.
One clock.
One hektograph.
One invoice book.
Three cuspidors.
One scrap book, six letter files.
One-half dozen framed mottoes.
Two waste baskets.
One geological map of Indiana, framed.

OFFICE SUPPLIES OF HAND.

The following supplies are now on hand:
500 copies of Rules, Regulations and Suggestions.
50 copies of report of Anderson Sanitary Convention.
1,000 books, births, death and epidemic disease returns.
250 marriage returns.
200 blank quarterly reports.
2 reams of wrapping paper.
1,000 envelopes.
1,000 letterheads.
100 blank returns, health officers' reports.
150 tabulating blanks for office.
150 diphtheria blanks.
150 scarlatina blanks.
150 typhoid fever blanks.
150 small-pox blanks.
450 blank surveys of school houses.
1 quart of black ink.
1 bottle of green ink.
1 bottle of red ink.
1 bottle hektograph ink.
1 gross steel pens.

1 dozen lead pencils.
250 2-cent stamps.
50 4-cent stamps.
300 1-cent stamps.
100 postal cards.
4 erasers.
1 whetstone.

FINANCIAL EXHIBIT.

In submitting a statement of the financial condition of the Board, it affords them pleasure to state that during the past year, and for the first time in its history, the office rent has been paid in full out of the annual appropriation, and all clerk hire and printing bills are now paid from the same fund. The Board has also supplied all county, city and town Boards with physicians' blanks for the return of marriages, births, deaths and contagious diseases, and has furnished county Boards of Health with blanks for regular quarterly reports, as well as special blanks for reports on infectious diseases. For the purpose of making returns of sanitary surveys of the school-houses, jails, poor-houses, and other institutions under control of the State, blanks have been furnished, free of cost, to the several surveying officers. All bills have been paid in full to the close of the fiscal year, and a balance of five dollars and twenty-one cents ($5.21) has been returned to the State Treasury. The following exhibit shows the receipts and several disbursements by the Board during the year ending October 31, 1884:

Receipts.

By annual appropriation	$5,000

Disbursements.

1883.			
Nov. 2.	W. W. Vinnedge	Travel'g and hotel exp.	$ 35 00
Nov. 2.	William Lomax	Travel'g and hotel exp.	26 35
Nov. 2.	Maggie Burns	Janitress	18 00
Nov. 3.	F. M. Stewart	Clerk	20 00
Nov. 3.	W. M. Harrison	Clerk	15 00
Nov. 7.	F. & A. M	Rent	60 00
Nov. 24.	F. M. Stewart	Clerk	52 50

Dec. 15.	E. S. Elder	Salary as Secretary	$150	00
Dec. 15.	Express Company	Expressage	15	75
Dec. 15.	J. L. Reiley	Clerk	125	25
Dec. 15.	F. M. Stewart	Clerk	60	00
Dec. 15.	Maggie Burns	Janitress	12	60
Dec. 15.	Gas Company	Lighting	3	60
Dec. 17.	W. M. Harrison	Clerk	112	50
Dec. 22.	W. B. Burford	Printing	19	40
1884.				
Jan. 12.	E. S. Elder	Salary as Secretary	100	00
Jan. 19.	N. A. Ins. Co	Insurance	9	00
Jan. 21.	W. M. Harrison	Clerk	25	00
Feb. 7.	F. & A. M	Rent	60	00
Feb. 9.	Vaccine Virus	For Ohio River Flood Sufferers	30	00
Feb. 9.	J. A. Wildman	Postage	30	00
Feb. 15.	E. S. Elder	Salary as Secretary	150	00
Feb. 16.	D. N. Berg	Clerk	20	00
Feb. 23.	D. N. Berg	Clerk	40	00
Mar. 7.	Gas Company	Lighting	6	80
Mar. 7.	Express Company	Expressage	5	75
Mar. 7.	J. M. Moulder	300 Copies Printed Report	3	50
Mar. 7.	Maggie Burns	Janitress	18	00
Mar. 7.	J. W. Compton	Traveling and Hotel Expenses	32	20
Mar. 7.	J. M. Partridge	Traveling and Hotel Expenses	67	00
Mar. 7.	W. B. Burford	Printing	134	29
Mar. 8.	D. N. Berg	Clerk	25	00
Mar. 11.	Telephone Co	Rent	15	00
Mar. 15.	D. N. Berg	Clerk	40	00
Mar. 29.	D. N. Berg	Clerk	40	00
Apr. 5.	D. N. Berg	Clerk	20	00
Apr. 10.	J. A. Wildman	Postage	30	00
Apr. 19.	D. N. Berg	Clerk	40	00
May 1.	F. & A. M	Rent	60	00
May 3.	D. N. Berg	Clerk	40	00
May 16.	E. S. Elder	Office Expenses	28	00
May 16.	W. B. Burford	Printing	13	25

May 17.	D. N. Berg	Clerk	$40 00
May 31.	D. N. Berg	Clerk	40 00
June 2.	J. A. Wildman	Postage	20 00
June 7.	D. N. Berg	Clerk	20 00
June 17.	E. S. Elder	Salary as Secretary	450 00
June 17.	E. S. Elder	Office Expenses	9 50
June 17.	J. W. Comptom	Traveling and Hotel Expenses	20 85
June 17.	Gas Company	Lighting	2 20
June 18.	William Lomax	Traveling and Hotel Expenses	7 15
June 18.	D, N. Berg	Clerk	20 00
June 19.	W. B. Burford	Printing	88 90
June 25.	Maggie Burns	Janitress	21 00
June 27.	J. M. Partridge	Traveling and Hotel Expenses	29 85
June 28.	F. M. Stewart	Clerk	35 00
July 2.	D. N. Berg	Clerk	29 00
July 5.	J. A. Wildman	Postage	30 00
July 6.	W. B. Burford	Printing	7 25
July 12.	D. N. Berg	Clerk	20 00
July 19.	D. N. Berg	Clerk	20 00
July 26.	Gas Company	Lighting	3 60
July 26.	Maggie Burns	Janitress	10 50
July 26.	Telephone Co	Rent	3 33
July 26.	D. N. Berg	Clerk	20 00
Aug. 1.	F & A. M	Rent	60 00
Aug. 2.	W. W. Vinnedge	Traveling and Hotel Expenses.	7 75
Aug. 2.	D. N. Berg	Clerk	20 00
Aug. 7.	Maggie Burns	Janitress	12 00
Aug. 9.	F. M. Stewart	Clerk	220 50
Aug. 9.	D. N. Berg	Clerk	40 00
Aug. 11.	E. S. Elder	Salary as Secretary	200 00
Aug. 16.	F. M. Stewart	Clerk	18 00
Aug. 16.	D. N. Berg	Clerk	40 00
Aug. 16.	Telephone Co	Rent	15 00
Aug. 30.	D. N. Berg	Clerk	40 00
Sept. 9.	F. M. Stewart	Clerk	33 00
Sept. 13.	J. A. Wildman	Postage	25 00

Sept. 13.	F. M. Stewart	Clerk	$18 00
Sept. 13.	D. N. Berg	Clerk	40 00
Sept. 13.	D. N. Berg	Expenses, Stamps, etc., Telegraphing	3 10
Sept. 15.	J. F. Edwards	For Annals of Hygiene	5 00
Sept. 15.	C. E. Diven	100 Copies Convention Proceedings	20 00
Sept. 15.	J. L. Reiley	Clerk	145 82
Sept. 20.	E. S. Elder	Salary as Secretary	50 00
Sept. 27.	D. N. Berg	Clerk	20 00
Sept. 27.	F. M. Stewart	Clerk	18 00
Oct. 3.	J. W. Compton	Traveling and Hotel Expenses	20 10
Oct. 3.	W. B. Burford	Printing	65 06
Oct. 3.	E. S. Elder	Office Expenses	15 50
Oct. 8.	Gas Company	Lighting	5 00
Oct. 8.	W. W. Vinnedge	Traveling and Hotel Expenses	8 90
Oct. 8.	Maggie Burns	Janitress	18 00
Oct. 8.	E. S. Elder	Office Expenses	8 30
Oct. 8.	Central Print'. Co	Printing	30 00
Oct. 10.	J. H. Elliott, V. S.	Examining Glandered Stock	10 00
Oct. 11.	D. N. Berg	Clerk	20 00
Oct. 5.	Carlon & Hollenbeck	Printing	10 00
Oct. 11.	F. M. Stewart	Clerk	18 00
Oct. 13.	E. L. Griffin	Vaccine virus	16 11
Oct. 18.	D. N. Berg	Clerk	20 00
Oct. 18.	W. R. Jenkins.	Books for Board Libr'y	19 84
Oct. 20.	William Lomax	Traveling and hotel expenses	9 30
Oct. 20.	J. B. Lindsey	Books for Board Libr'y	41 60
Oct. 20.	A. N. Bell	Books for Board Libr'y	36 00
Oct. 22.	J. M. Partridge	Traveling and hotel expenses	27 00
Oct. 22.	H. Holt & Co	Books for Board Libr'y	1 38
Oct. 22.	Clapp & Taylor	Books for Board Libr'y	3 00
Oct. 25.	A. N. Bell	Books for Board Libr'y	27 30
Oct. 25.	F. M. Stewart	Clerk	18 00
Oct. 25.	D. N. Berg	Clerk	20 00

Oct.	29.	T. B. Redding	Analytical examination of pork, killed for export, with reference to Trichina	$100 00
Oct.	29.	Hiram Hadley	Books for Board Libr'y	40 00
Oct.	29.	Chas. Hederick	Book case and repairs on cases in office	50 00
Oct.	29.	Robt. Clark & Co.	Books for Board Libr'y	196 36
Oct.	30.	E. S. Elder	Salary as Secretary	100 00
Oct.	30.	J. N. Hurty	For food analysis and report thereon	50 00
Oct.	30.	F. and A. M.	Rent	60 00
Oct.	30.	J. A. Wildman	Postage	46 00
Oct.	30.	D. N. Berg	Clerk	16 00
Oct.	30.	F. M. Stewart	Clerk	9 00
Oct.	30.	W. B. Burford	Printing	51 00
		Total		$4,994 79

Credit by appropriation	$5,000 00
Total expenses	4,994 79
Balance returned to State Treasury	$5 21

SANITARY AUTHORITIES AND ASSOCIATIONS.

The following comprises a full list of American and foreign Boards of Health and Sanitary Associations, together with the address of their executive officers:

UNITED STATES OF AMERICA.

NATIONAL.

National Board of Health, Lieutenant W. P. Dunwoody, Secretary, Washington, D. C.

United States Marine Hospital Service, Dr. John B. Hamilton, Surgeon General, Washington, D. C.

American Public Health Association, Dr. Irving A. Watson, Secretary, Concord, N. H.

Sanitary Council of the Mississippi Valley, Dr. John H. Rauch, Secretary, Springfield, Ill.

STATE BOARDS OF HEALTH AND SECRETARIES.

Alabama, Dr. Jerome Cochran, Mobile.
Arkansas, Dr. J. A. Dibrell, Jr., Little Rock.
California, Dr. F. W. Hatch, Sacremento.
Colorado, (disorganized).
Connecticut, Dr. C. A. Lindsley, Hartford.
Delaware, Dr. William Marshall, Dover.
Georgia, Dr. V. H. Taliaferro, Atlanta.
Illinois, Dr. John H. Rauch, Springfield.
Indiana, Dr. E. S. Elder, Indianapolis.
Iowa, Mr. L. F. Andrews, Des Moines.
Kentucky, J. N. McCormack, Bowling Green.
Louisiana, Dr. S. S. Herrick, New Orleans.
Maryland, Dr. C. W. Chancellor, Baltimore.
Massachusetts, Dr. S. W. Abbott, Wakefield.
Michigan, Dr. Henry B. Baker, Lansing.
Minnesota, Dr. C. N. Hewitt, Red Wing.
Mississippi, Dr. Wirt Johnston, Jackson.
Missouri, Dr. J. C. Hearne, Hannibal.
New Hampshire, Dr. Irving A. Watson, Concord.
New Jersey, Dr. Ezra M. Hunt, Trenton.
New York, Dr. A. E. Carroll, Albany.
North Carolina, Dr. Thomas F. Wood, Wilmington.
Oregon (not yet appointed).
Rhode Island, Dr. Chas. H. Fisher, Providence.
South Carolina, Dr. Henry D. Frazer, Charleston.
Tennessee, Dr. C. C. Fite, Nashville.
Texas, Dr. R. M. Swearingan, Austin.
West Virginia, Dr. James E. Reeves, Wheeling.
Wisconsin, Dr. J. T. Reeve, Appleton.

FOREIGN COUNTRIES.

AUSTRIA.

Lower Austria. President of the Landes-Sanitäts-Rath: Fredrich Wilhelm Loriner, Director des K. K. Krankenhauses Wieden, Vienna.

Vienna. Stadt Physicat, Dr. Franz Innhauser, K. K. Sanitäts-Rath, am Hof, No. 7.

BELGIUM.

Antwerp, Bureau of Vital Statistics.

Brussels, Dr. E. Janssens, Sanitary Inspector.

CANADA.

Canadian Sanitary Association, F. N. Boxer, C. E., Secretary, Montreal.

Montreal, P. Q., Dr. A. B. La Roçque, Medical Officer of Health.

Ottawa, P. Q., Bureau of Vital Statistics.

Toronto, Ont., Bureau of Vital Statistics.

Toronto, Ont., Dr. P. H. Bryce, Secretary Provincial Board of Health.

Quebec, P. Q., Bureau of Vital Statistics.

Winnepeg, Manitoba, the Minister of the Department of Agriculture, Statistics and Health.

CHINA.

Pekin, Sir Robert Hart, Inspector General of Maritime Customs.

Shanghai, Dr. R. A. Jamieson, Inspectorate General of Customs, Statistical Department.

CUBA.

Havana, Dr. Daniel M. Burgess, U. S. Sanitary Inspector.

EGYPT.

Alexandria, Egyptian Sanitary Commission.

Cairo, Chief of the Department of Public Health.

ENGLAND.

Ladies Sanitary Association, Miss Rose Adams, Secretary, 22 Berner's st., Oxford st., W., London.

Local Government Board, Dr. George Buchanan, Medical Officer of Health, Whitehall, London.

Municipal and Sanitary Engineers' Association, T. Cole, C. E., Secretary, 6 Westminster Chambers, Victoria street, London, S. W., England.

Sanitary Institute of Great Britain, F. White Wallis, Secretary, 9 Conduit street, London, W., England.

National Association for the Promotion of Social Science, J. L. Clifford Smith, Secretary, 1 Adam street, Adelphi, London, W. C., England.

The Registrar General, General Register Office, Somerset House, London, W. C.

Liverpool, Dr. J. Stopford Taylor, Medical Officer of Health Department, Municipal Offices, Dale street.

Liverpool, Dr. William Kelly, Dr. Robert Jones, Dr. J. Oliver, U. S. Sanitary Inspectors.

London, Dr. Saunders, Medical Officer of Health.

London, Dr. Joseph H. Hill, U. S. Sanitary Inspector.

Marseilles, Dr. Albenois, Director du Bureau Communal de Démographie et de Statistique Médicale, 9 Rue Venture.

Nottingham, Dr. Edward Seaton, Medical Officer of Health.

Ramsgate, Edward Walford, Medical Officer of Health.

Salford, Dr. John Tatham, Medical Officer of Health.

FRANCE.

Bayonne, Commission of Hygiene and Statistics.

Caen, Bureau D'Hygiene.

Havre, Bureau D'Hygiene.

La Rochelle, Dr. Gustave Drouineau, Secretairé du Bureau D'Hygiene.

Paris, M. Fauvel, Inspector General Sanitary Service.

Paris, M. le Prefet de la Seine, Service de la Statistique Municipale, Avenue Victoria, 1,

Paris, Monsieur Patin, Secretairé, Conseil D'Hygiene, Prefecture de Police.

Constantinople, the International Sanitary Council.

Rochefort, Bureau D'Hygiene.

Roen, Bureau D'Hygiene.

GERMANY.

Berlin, Statistisches Bureau der Stadt, Breite Strasse 20a C.

Berlin, Dr. K. Becker, Director Imperial Bureau of Statistics.

Dresden, Dr. Victor Böhmert, Director Bureau of Statistics, Kingdom of Saxony.

Hamburg, Dr. Kraus, Medical Director.

HINDOSTAN.

Calcutta, Dr. K. McLeod, Surg. Maj., Medical Officer of Health.

HOLLAND.

Amersterdam, Dr. L. Scheltema Beduin, Secretary Board of Health.

HUNGARY.

Buda Pesth, Dr. L. Csatery, Medical Officer of Health.

IRELAND.

Dublin, Dr. C. A. Cameron, Medical Officer of Health.

Dublin, Dr. Grimshaw, Registrar General, General Registrar Office, Charlemont House.

ITALY.

Genoa, Visto: Il Presidente, Della Giunta di Statistica.

Naples, Visto: Il Presidente, Della Giunta di Statistica.

Rome, Prof. Luigi Bodio, Directore della Statistica Generale, Ministero del Commercio.

Rome, A. Cocchi, Direttor dell 'Ufficio di Statistica E. Stato Civile, Della Citter di Roma.

Venice, Onorevale al Sindaco, Ufficio di Statistica.

JAPAN.

Imperial Health Department, Sensai Negayo, Secretary, Tokio.

MEXICO.

Tampico, Dr. J. M. Main, Health Officer.

Vera Cruz, Dr. Robert Mainegra, U. S. Sanitary Inspector.

PORTUGAL.

Lisbon, Bureau of Vital Statistics.

Oporto, Bureau of Vital Statistics.

SCOTLAND.

Glasgow, Dr. James B. Russell, Medical Officer of Health.

SERVIA.

Belgrade, Dr. Vladan Georgevitch, Medical Officer of Health.

SPAIN.

Barcelona, Sr. Inspector del Servicio Sanitario.
Madrid, Pedro A. Torres, Director General.
Madrid, Sr. Inspector del Servicio Sanitario.
Valencia, Sr. Inspector del Servicio Sanitario.

SWEDEN.

Swedish Board of Health, General Direktóren, Herr A. T. Almin, Stockholm.

Stockholm, Dr. K. Limoth, Health Officer.

SWITZERLAND.

Berne, M. Krummer, Director Federal Bureau of Statistics.

TURKEY.

Constantinople, Conseil Superieur de Santé.

SPECIAL WORK OF THE BOARD.

The work of the Board during the past year was much more comprehensive than heretofore, and was attended by more appreciable results, and we feel that the foundations of sanitary work have been laid broad and deep, and the Board has entered heartily upon the work of erecting thereon a superstructure of general and practical knowledge. The quarterly meetings have been attended by all the members, and each has taken an active interest in the work, and harmony and mutual confidence have characterized all. The Board has distributed 2,500 copies of its Second Annual Report throughout the State; some were furnished other Boards in exchange, and others placed in various libraries of the country. The report has been favorably noticed by the daily and weekly press, sanitary, medical, and educational journals, and by persons interested in the public health. So general has been the demand for the Report that the Board believes that at least 5,000 copies of the present Report should be published. The people of the State are beginning to appreciate the value of hygienic and sanitary measures, and no more judicious expense of a reasonable amount of public funds could be made than in furnishing a large edition of such literature.

COUNTY BOARDS.

Prior to January 1, 1884, there were two counties that had not organized under the law providing for the establishment of County Boards of Health, and, as a consequence, they made no return of marriages, births, deaths, and dangerous diseases, to this office. Several other counties reported so imperfectly that their returns were practically of no value.

Since January, however, every county in the State has sent in quarterly reports with commendable regularity, and a marked improvement in the completeness of the reports from many counties has been noticed by this department with satisfaction. At this time every County Board of Health in the State is working in perfect harmony with the State Board, and it affords the latter pleasure to state that the secretaries of local Boards have proved themselves not only competent and efficient officers, but faithful and painstaking public servants. Wherever infectious diseases have appeared in the State, these officers have adopted vigorous measures against their dissemination, and have ultimately succeeded in stamping it out entirely. Especially was this true in February last, when small-pox appeared in a number of counties bordering upon the Ohio river, and attacked the persons of many who had been rendered homeless by the floods, and were in no condition to combat the ravages of that loathsome disease. Driven from home by the floods, crowded into narrow and uncomfortable quarters, and surrounded by the most unhygienic influences, it was only the prompt, intelligent and efficient action of the local health officers that prevented an epidemic of that dread disease. In Clark, Floyd, Jefferson, Perry, Spencer and Vanderburgh counties a few cases appeared. Diphtheria, scarlatina and typhoid fever threatened these counties at the same time, and were arrested and controlled in the same manner. Not only in these localities, but in many others as well, equally meritorious services have been rendered by local health officers. The enforcement of the provisions of the statutes regarding public health has been a matter which requires the exercise of discriminative powers on the part of the health officers, as in many cases the violation of the provisions of the law was the result of ignorance or carelessness rather than of criminal intent on the part of the person offending.

The Board has always advised a lenient policy in such cases, and where prosecutions have been instituted, and the evidence showed ignorance or carelessness, without criminal intent, the violations were generally permitted to pass unpunished.

The time has now arrived, however, when there should be a more rigid enforcement of the law than has heretofore been demanded by the Board. The position of county health officer is one of vast importance to the citizens of the county, and they should see that it is filled by men of recognized ability and sterling worth as citizens, men whose interests are unmistakably connected with the growth and development of the counties, and the welfare and happiness of the people whom they are called upon to serve. Compared with the local health office, the remaining offices of trust and profit in the county sink into insignificance. If sloth or neglect or even corruption find its way into these, the great body of the people are injured only in their material wealth, and a change may soon restore all things to their natural working order, but when a health officer neglects or fails to perform his duties, the people are practically left to the mercy of diseases which may entail a lifetime of inconvenience and suffering and whose effects may be plainly traced to the third and fourth generation. When the distress of mind and pecuniary expense incident to protracted illness or the prevalence of epidemic disease, even for a short time are taken into consideration, in this estimate, the importance of the position of the local health officer becomes self-evident. For these very obvious reasons the health officer of a county should be selected with reference only to his fitness for the position, and no question of political bias should be permitted to control or even have place among the reasons for his appointment. The Board learns with regret that in a few counties in the State the Commissioners permit the position of local health offices to be filled by the lowest bidder, regardless of qualifications, thus, making the quality of cheapness the ruling, and possibly the only cause for his selection. It is hardly necessary to say that this is a most egregious error, and that its practical result is to shut out from the office that efficiency and experience which are essential to its successful administration. As the county health officer is largely the arbiter of the health and lives, and consequently of the prosperity and happiness of the people, the practice of making the matter of cheapness the prime factor in his selection, is an outrage upon the public, reaches almost to the enormity of a crime, and is liable to prove a costly experience to the tax-payers. Boards of County Commissioners would hardly dare to select a county attorney on such a principle and certainly no practical, common sense man would select his family physician upon the single qualification of being the lowest bidder.

SANITARY SURVEY OF COUNTY ASYLUMS FOR THE POOR.

Acting under instructions from this department, and provided with blanks for making full returns, a sanitary survey was made, in the past year, of every county poor asylum in the State. The name of this institution naturally suggests the idea of sorrow, distress and misfortune, and has, unfortunately become a synonym for these several conditions.

The inmates of our county poor asylums represent three classes: those who are reduced by adversity to a state of dependence upon public charity, those who are paupers either from habits of idleness or by inheritance, and those, the most pitiable of all, who are imbecile or idiotic from birth or from causes unforseen and beyond control, and who have been unable to gain admission to the Hospital for the Insane, or having been received into that institution for treatment, have been returned to the counties as incurable. While the inmates of the asylums are without friends or relatives who possess the ability to ameliorate their condition, they are specially unfortunate in many instances in being entirely overlooked by humanitarians. The Board expected that official scrutiny would reveal many unhygienic influences in the asylums, and the result of the surveys has confirmed the justice of these expectations. An almost universal unhygienic condition was disclosed; and, though the statement is made with reluctance, it is a fact, that in many counties these "poor houses" are such in point of fact as well as in name, and are a disgrace to that Christian civilization of which Americans are prone to boast. The reports of the surveys from many of them present a sickening picture; large numbers are poorly adapted to their use, and are badly kept, and worse managed.

From a compilation made it is found that 12 per cent. of the grounds are wet, and need drainage; 10 per cent. are dirty and foul; 33 per cent. of the buildings are in bad repair; 70 per cent. are poorly ventilated; in 30 per cent. an offensive odor is detected upon entering the rooms; 11 per cent. of the rooms are dirty; 14 per cent. of the beds and bedding are filthy; 7 per cent. of the beds are covered with vermin; 8 per cent. of the buildings have never been whitewashed or disinfected; in 7 per cent. of the houses the water used was foul, and in 8 per cent. of the remainder the wells are not protected from pollution; 20 per cent. of the cellars are damp, and in 15 per cent. of the houses the water-closets have never been cleaned or disinfected. At the time of making the surveys there were 3,539 persons in the county asylums, 1,855 of whom were males and 1,684 females. In 11 per cent. of the asylums the inmates were dirty, and there were no regulations requiring them to adopt habits of cleanliness. The saddest feature of these institutions is the fact that 610 of the inmates are insane. Of these 296 are males and 314 females, distributed among the counties in numbers ranging from one to twenty each. The condition of this class of paupers is melancholy indeed. In many instances they are under the control and discipline of persons who are lamentably ignorant of the proper care to be exercised, and, having no interest in them, and no sympathy for their condition, they are frequently subjected to inhuman treatment, and, to what is equally as bad, shameful neglect. The Board comprehends the embarrassments resulting from the presence of insane persons in the county asylums, but it can not be denied that in many of them the condition of these unfortunates is rendered needlessly hard. In this connection the Board would call attention to the article in its Second Annual Report, written by Dr. Fletcher, on "Restraint or Non-Restraint in the Treatment of the Insane." A few weeks ago the Secretary of this Board officially visited the Indiana Hospital for the Insane. In his report of that visit he says: "While passing through every ward in the institution, I was struck with the quietude and cheerfulness of the inmates. In no part of the building did I find anything, either in word or act, that would offend the sensibilities of the most refined. Sunlight and quietude everywhere. I was surprised and gratified to learn from Dr. Fletcher, the Superintendent, that not a single physical restraint was in use in the entire institution among all the 1,100 inmates." How is it in these county asylums for the poor? Although they have no maniacal patients, yet in 83 per cent. of the asylums restraints are in use upon these poor unfortunates. Many of them are cribbed, many tied, others chained; some in dark cells, others in strong rooms; some are fastened to the floors, and wallowing in their own filth; others are in pens and stalls; many are confined in straight jackets; and in one asylum for the poor, situated in a county adjoining the capital of the State, one poor insane woman spends her time in solitary confinement in a cell or coop of iron. True, the erection of the new Insane Asylums will relieve this distress, but under the care and attention they will receive this class must suffer greatly during the time required for the erection of the new hospitals.

The presence of 170 males and 161 female idiots in the poor asylums is a source of profound regret. No adequate means for their care have been provided, and in some cases they are whipped and beaten like so many brutes. The sexes, in some instances, are allowed to associate together; cohabitation is indulged in, children are begotten and born, and these miserable beings thus add to the number of imbecile paupers whom the tax-payers have to support. The oldest pauper found in any one of these institutions was 88 years of age, and 633 of the inmates are under 15. No suitable provision exists for the education of these children. They are not separated from the adults, and they soon acquire those idle and vicious propensities that unfit them for society. The total number of deaths in these institutions during the year aggregate nearly 300. As an index to the general condition of the asylums, the following extracts are reproduced from the reports of the surveying officers:

"A separate building should be erected for the children that they might be kept apart from old inmates. There are fourteen children who stay in the rooms with the older paupers, some of whom, both male and female, are bad characters; and if compelled to associate with them long, the young will learn what it will be better for them not to know."

"We want a better water supply, better ventilation, and more heat in the upper stories. The insane should be taken from the basement and placed in the upper story, or in a separate building, and a ventilator should be carried up through the roof."

"I think it is a sorrowful place for the poor to be kept in, and a disgrace to our county."

"It would be better to condemn and vacate all these buildings, erect suitable ones, separate the children and adults, and give all better care. The building is a disgrace to the county. The insane and idiotic require better treatment, and should be put far away from the children."

"There are eight inmates who should be removed to the asylum for the insane."

"The insane are locked in rooms or cells, and fastened with ball and chain."

"The original building was an ordinary frame house, to which additions have been made three or four times. There is no bath-room attached. The insane are locked in cells, and kept on bread and water till they consent to behave."

"When violent, the insane are confined by shackles to staples in the floor."

"The provision made for the helplessly insane is entirely inadequate."

"The construction of the house is bad; the atmosphere is bad; no adequate ventilation."

"The house is badly arranged, poorly ventilated and badly lighted."

"The house is a very poor structure, located on a piece of very low, swampy ground, with a barn-yard near. The water is not good at any time of the year, and there are no cisterns."

"There is a lack of rooms for inmates, and the number apportioned to each room is entirely too large for the size of the rooms."

"There is a vein of water which keeps the cellar floor damp all the time."

"The Commissioners let the contract for keeping the poorhouse to the lowest bidder, and the present keeper gets $1.75 per week for each inmate. He has to clothe, feed and lodge them at that price, so you may guess that they are not fed or clothed very well, or much pains taken with them in any way.

The males and females are not separated, and consequently much immorality and vice is the result. It is but a hot-bed for the incubation of paupers, as many babies are begotten and born there; some from very young girls."

"One insane inmate chained to the floor and two females in cells are in a very badly constructed house."

"A new house should be erected and the children separated from the idiots and insane. The insane have nothing but pens to be kept in."

"Well too near the privies. This county is badly in need of a new building, for the present one is in very bad repair, and it is very difficult to keep the inmates clear of vermin."

"I would suggest that the insane be kept in a separate building, and the children separated from the old paupers and idiots and insane."

"The buildings are very poor, insufficient and inadequate to the demand, ill ventilated, and, in fact, not as good as ordinary cattle sheds." To the Board the same officer writes: "This report is a matter of fact, and the condition of the indigent poor at the so-called asylum is certainly as lamentable as the report indicates." Speaking of this institution, one of the county papers says:

"Another one of these inmates is palsied, but is quite an intelligent man yet. He lies on his bed day after day in a little poverty-stricken-looking room, which at night two more use for a sleeping apartment, but which does not contain enough pure air for one pair of lungs. The smell on entering the house is sickening in the extreme from want of ventilation. With the quarters as they are at present, and the inmates old men with fixed habits when they enter, it will take constant care and attention to keep it in any kind of hygienic condition. There is probably not one there that needs not the help they are receiving, and in the care of the simple-minded and aged, there should be ample provision made that the county's asylum is not the disagraceful place it is now. There may have been obstacles in the way of providing better quarters, but there is no obstacle in the way of taking these children out of the poor house, or at least of separating them from the adults. This county is among the wealthiest and most prosperous counties in the State, and should use intelligent discrimination in admitting inmates, and then make comfortable provisions for them. We have avoided moralizing in order to give a simple statement of facts. We wish we could draw the picture as it should be presented. We wish every person in the county could see the house devoted to the male inmates. We will not say that it is squalid, because it is not, but it is entirely bare of all the comforts or even the necessities of life, and lacks the qualities that go to make healthful existence possible."

The foregoing extracts are all taken from the official reports of sanitary officers, and are on file in our office, and many of these asylums are located in some of the richest counties in the State. The list might be extended beyond the present limits, but it is preferred to draw the curtain here, and to say that the State Board of Health has determined that the light of sanitary science shall illuminate the dark, uninviting recesses where these wrongs hide themselves from the public.

SANITARY SURVEYS OF COUNTY PRISONS.

Pursuing the same line of investigation, the Board ordered a sanitary survey of all the county prisons, and the local officers were duly furnished with blanks to make reports of their investigation.

In 20 per cent. of the prisons the drainage was bad. Fifty-two of the houses are constructed of brick, 31 of stone, and 5 of wood. Twenty per cent. of these are in bad repair, and in 18 per cent. the interior of the houses is damp. Thirty-three per cent. of the houses are badly ventilated, and 32 per cent. of the cells are in the same condition. Twelve per cent. of the bedding and 10 per cent. of the cells are dirty, and in 7 per cent. the bedding is insufficient. Eleven per cent. of the prisons are filthy. Seventeen of the houses were never disinfected, 16 cleaned but once a week, 8 but quarterly, and in 13 of them the cells are never cleaned or disinfected. Twenty-one of the prisons are scrubbed weekly, 6 of them quarterly, and 3 monthly. Twenty-three per cent. of the prisons have no water-closets, and of those that have, 30 per cent. are in bad order; 30 per cent. are not sewered. Of the 368 prisoners, 345 are males and 23 are females. Four of them are over eighty years of age, 31 under fifteen, and the youngest nine years old. In 15 per cent. of the prisons there are no separate apartments for the accommodation of the sexes, and they are permitted to associate indiscriminately. In 87 per cent. the old and young are not separated. There are 22 insane persons confined in the prisons of the State, and they are thus in charge of men who understand nothing of their treatment; their condition is necessarily bad. In 10 per cent. of the prisons no attempt whatever is made to compel the prisoners to adopt habits of cleanliness.

It is generally conceded that this field is not an inviting one, and that criminals are entitled only to that measure of sympathy which is consistent with their safe-keeping, but common humanity demands that, when the State places a man in confinement, it should surround him, as far as possible, with those conditions which are favorable to health, and not calculated to sow the seeds of disease, suffering and death. The association of the sexes in the county prisons is a reproach to decency, and the habit of permitting young and old to mingle indiscriminately is most disastrous in its consequences, fixing the young in habits of vice, and strengthening those tendencies to crime which prove expensive and dangerous to the State.

SANITARY SURVEY OF SCHOOL-HOUSES.

The basal truths of sanitary science are more generally comprehended than practiced. The reasons for the prevalence of so much bad hygiene should be attributed more to negligence than to ignorance. What is most needed in sanitary reform is the proper application of sanitary laws. This feature of our work is of greatest interest to health officials. Those of us who are entrusted with the executive department of boards of health feel deeply the necessity of devising means and methods by which we can bring our work into contact with the people. Sustained as we are by the public funds, and amenable to the tax-payers, we must render to them some showing for their money; in short, to sustain ourselves, we must popularize our bureaus. To do this we must largely rely upon practical efforts. Whilst it is of very great importance to the sanitarian that the cause of obscure forms of disease should be pointed out, or that the relationship existing between certain pathological manifestations should be determined, yet the public impatiently demand a demonstration of the value of practical hygiene in saving life. Theory does not concern the tax-payer.

Practical results are the standards by which our work is adjudged. With the dual object of accomplishing much good hygienic work, and of demonstrating the value of our State Board of Health, one year ago we determined upon a "sanitary survey" of the various school-houses in our State.

From the official report of the State Superintendent of Public Instruction, we learn that there are in Indiana 9,869 public school-houses, valued at over $13,000,000. Of these, 6,898 were frame; 2,763 were brick; 116 were log, and 82 stone. I have reason to believe that the school-houses of Indiana are fully as good hygienically as those of surrounding States, for the public schools of Indiana have long and justly been a pride to her citizens. The magnificent provisions made for the education of her children, the large and ever-accumulating permanent fund of nearly $10,000,000, sacredly dedicated to the common schools, are the admiration of all; and for years past the State political conventions have vied with each other in framing resolutions and planks commendatory of the common school system of our State. Yet, from personal observation, as a health officer and physician, and an experience as a pupil and teacher, we were induced to believe that there were many hygienic errors in the location, construction and condition of the ten thousand school-houses in the State, and among the seven hundred thousand pupils admitted thereto. The following form for a report of a "sanitary survey" of the school-houses throughout the State was prepared, and county health officers were supplied with copies enough for each of the school-houses in their respective counties:

SANITARY SURVEY OF SCHOOL-HOUSES.

In District No. . . . . Township.

. . . . County.

By . . . . of . . . .

Question.

1. Where located . . . . Size . . No. of rooms . . Material . . .
2. Is the building in good repair? . . . Height of ceiling . . . . .
3. Is it on a public road? . . . . . .
4. Is it on high, well-drained gronnd? . . . . . .
5. What is the size of the yard? . . . . . .
6. Is it fenced? . . . . . .
7. Does water stand in ponds in the yard? . . . . . .
8. Is the house well ventilated? . . . . . . 9. How? . . . . . .

10. What are the means for heating? . . . . . .
11. If stoves are used are they perfectly safe and in good order? . . . . . .
12. How many windows? . . . . . . Size . . . . . .
13. Are the windows to the left or right, behind or in front of the pupils? . .
14. Are the blackboards placed between the windows? . . . . . .
    Are the surfaces of the blackboards dead or glossy? . . . . . .
15. What is the source of water supply? . . . . . . If from wells, are they kept clean and in good order? . . . . . .
16. Is the source of water-supply safe, and protected from contamination by cesspools, overflows, stables, hog-pens, privies, stock and barn-yards, foul, standing or running water? . . . . . .
17. Are there any privies? . . . . . . Are they in good order? . . . . . .
18. Have the privies vaults? . . . . . . How often are they disinfected or cleaned? . . . . . .
19. Are the pupils required to be vaccinated before entering the school? . . .
20. Are the pupils from houses where infectious or contagious diseases are prevailing excluded from the school? . . . . . .
21. Do you consider the children overworked? . . . . . .
22. Are all the doors hung so that they shall swing outwardly, as provided by section 2155 Revised Statutes of Indiana? . . . . . .
23. What suggestions can you make to render the hygienic condition of the school more favorable? . . . . . .

Please fill all the blanks, and answer all the questions. It may seem that some of these questions are very simple, and others superfluous, but remember that when we get returns from ten thousand school-houses, that much valuable information will be derived, and many practical deductions made. Every question upon this blank is a practical one, and suggested by the observation of intelligent educators, and based upon good reasons. Especial attention is directed to questions 15, 16, 17, 19, 20 and 22. We want a report as soon as possible, as we desire to incorporate a synopsis of the observations in the next annual report of this bureau. I hope that a spirit of generous rivalry and enthusiasm will induce. the persons entrusted with this work to strive to excel in the promptness, correctness and completeness of this survey. Remembering that if we can be the means of saving the life or health of some school child, we shall have accomplished a good mission.

Very truly,

E. S. ELDER, M. D.,

Secretary Indiana State Board of Health.

Agreeably to the expectations of the Board, the surveys of the public school-houses, revealed a general unhygienic condition of them. Below is a tabulation of the results of the surveys in the several counties:

SURVEY OF PUBLIC SCHOOL HOUSES BY COUNTIES.

COUNTIES.	5			6			7			8			10	11			13					14			14½			15				
	One-half acre, more or less.	One acre or more.	Not reported.	Yes.	No.	Not reported.	Yes.	No.	Not reported.	Yes.	No.	Not reported.	Stoves or furnaces.	Yes.	No.	Not reported.	Right.	Left.	Front.	Behind.	Not reported.	Yes.	No.	Not reported.	Dead.	Glossy.	Not reported.	Wells.	Neighbors.	Springs.	Ditch, cisterns.	Not reported.
Adams	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Allen	9	. .	. .	9	. .	. .	. .	9	. .	9	. .	. .	9	9	. .	. .	9	9	. .	. .	. .	6	3	. .	9	. .	. .	8	. .	. .	1	. .
Bartholomew	64	30	2	69	26	1	1	95	. .	80	13	3	96	90	6	. .	96	96	2	15	. .	26	70	. .	62	34	. .	80	4	9	1	2
Benton	17	11	2	14	16	. .	2	26	2	24	6	. .	30	25	4	1	28	28	1	6	2	7	23	. .	20	8	2	24	5	1	. .	. .
Blackford	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Boone	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Brown	32	3	16	2	49	. .	. .	51	. .	38	13	. .	51	38	13	. .	49	49	1	. .	1	3	48	. .	8	42	1	35	14	. .	. .	2
Carroll	40	19	3	46	16	. .	15	47	. .	32	28	2	62	41	15	6	62	62	. .	4	. .	24	38	. .	50	11	1	20	32	9	1	. .
Cass	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Clark	50	37	5	34	54	4	14	78	. .	63	28	1	92	77	15	. .	90	88	10	20	. .	34	56	2	55	35	2	49	15	23	4	. .
Clay	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Clinton	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Crawford	17	6	8	2	29	. .	6	25	. .	12	19	. .	31	20	11	. .	31	31	3	6	1	8	23	. .	22	8	1	12	1	14	2–2	. .
Daviess	27	11	4	8	32	2	5	35	2	31	11	. .	42	29	13	. .	42	42	3	4	. .	15	27	. .	30	12	. .	21	10	5	5	1
Dearborn	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Decatur	57	22	2	69	12	. .	15	66	. .	59	22	. .	81	73	7	1	79	79	3	9	4	9	70	2	38	35	8	66	8	6	. .	1
Dekalb	44	8	4	30	26	. .	6	50	. .	46	10	. .	56	48	8	. .	56	56	. .	9	. .	7	49	. .	34	17	5	23	27	. .	. .	6
Delaware	55	52	3	76	31	3	10	100	. .	54	49	7	110	107	2	1	102	101	2	16	5	57	53	. .	86	19	5	90	17	3	. .	. .
Dubois	41	56	1	13	85	. .	6	91	1	65	33	. .	98	90	7	1	98	98	4	14	. .	17	81	. .	59	34	5	50	11	19	17	1
Elkhart	25	4	. .	16	13	. .	1	28	. .	22	7	. .	29	28	. .	1	29	29	4	1	. .	15	14	. .	26	1	2	26	3	. .	. .	. .
Fayette	49	6	. .	52	2	1	1	54	. .	47	7	1	55	54	1	. .	55	55	6	11	. .	33	22	. .	47	6	2	48	2	4	. .	1
Floyd	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Fountain	81	22	4	50	51	6	12	95	. .	69	37	1	107	88	18	1	107	107	19	30	. .	30	77	. .	64	42	1	35	59	11	2–	. .
Franklin	29	17	8	32	22	. .	8	46	. .	45	9	. .	54	50	4	. .	54	54	6	19	. .	10	44	. .	40	11	3	23	22	7	2	. .
Fulton	33	5	8	15	29	2	13	32	1	18	26	2	46	22	23	1	43	43	2	7	. .	12	34	. .	26	16	4	23	21	1	. .	1

SURVEY OF PUBLIC SCHOOL HOUSES BY COUNTIES—Continued.

COUNTIES.	5			6			7			8			10	11			13					14.			14½			15				
	One-half acre, more or less.	One acre or more.	Not reported.	Yes.	No.	Not reported.	Yes.	No.	Not reported.	Yes.	No.	Not reported.	Stoves or furnaces.	Yes.	No.	Not reported.	Right.	Left.	Front.	Behind.	Not reported.	Yes.	No.	Not reported.	Dead.	Glossy.	Not reported.	Wells.	Neighbors.	Springs.	Cisterns.	Not reported.
Gibson	43	35	3	21	60	. .	15	66	. .	56	25	. .	81	56	25	. .	81	81	7	19	. .	36	44	1	58	23	. .	56	9	3	13	. .
Grant	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Greene	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Hamilton	34	22	1	45	12	. .	16	40	1	31	16	10	57	41	16	. .	57	56	1	5	. .	14	43	. .	25	29	3	30	24	. .	. .	3
Hancock	62	15	9	56	20	10	. .	85	1	73	8	5	86	86	. .	. .	86	86	3	6	. .	29	57	. .	66	19	1	74	9	. .	. .	3
Harrison	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Hendricks	55	48	3	97	8	1	20	86	. .	78	23	5	106	100	2	4	106	106	6	17	. .	39	67	. .	62	39	5	101	. .	4	1	. .
Henry	52	20	4	63	12	1	11	65	. .	62	12	2	76	75	1	. .	76	76	2	13	. .	11	65	. .	69	7	. .	61	5	9	. .	1
Howard	56	24	. .	36	42	. .	27	53	. .	37	43	. .	80	45	35	. .	77	76	6	13	. .	27	53	. .	51	29	. .	43	36	1	. .	. .
Huntington	86	24	2	92	20	. .	2	110	. .	10	98	4	112	103	9	. .	112	112	. .	8	. .	3	107	2	107	. .	5	12	100	. .	. .	. .
Jackson	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Jasper	20	70	2	25	65	2	6	83	3	87	3	2	92	87	5	. .	92	92	2	16	. .	20	70	2	82	6	4	25	59	. .	. .	8
Jay	15	10	4	9	20	. .	6	21	2	7	22	. .	29	26	3	. .	29	29	1	2	. .	1	28	. .	23	6	. .	8	19	. .	2	. .
Jefferson	8	13	4	11	14	. .	5	20	. .	12	13	. .	25	22	3	. .	25	25	. .	5	. .	17	8	. .	20	5	. .	7	2	7	9	. .
Jennings	22	13	68	10	93	. .	4	99	. .	101	2	. .	103	92	4	7	103	103	3	63	. .	9	90	4	105	. .	. .	93	. .	10	. .	. .
Johnson	60	20	4	76	7	1	18	66	. .	70	13	1	84	65	19	. .	84	84	5	14	. .	39	45	. .	50	30	4	67	10	5	1	1
Knox	51	15	6	32	40	. .	8	64	. .	58	12	2	72	63	7	2	70	71	8	13	. .	30	41	1	41	24	7	58	6	8	. .	. .
Kosciusko	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Lagrange	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Lake	75	6	5	38	48	. .	28	55	3	54	31	1	86	76	8	2	85	85	7	22	. .	19	67	. .	60	23	3	63	20	. .	. .	3
Laporte	68	12	3	58	24	1	1	81	1	77	3	3	83	82	1	. .	83	83	4	22	. .	24	59	. .	68	10	5	66	12	5	. .	. .
Lawrence	8	2	10	6	14	. .	2	18	. .	7	10	3	20	11	9	. .	19	19	6	6	. .	11	8	1	12	7	1	4	. .	12	3	1
Madison	46	14	5	39	26	. .	18	47	. .	47	18	. .	65	45	20	. .	62	62	. .	13	. .	13	52	. .	39	20	6	36	25	. .	4	. .
Marion	22	17	4	37	5	1	12	28	3	19	20	4	43	26	13	4	43	43	1	5	. .	14	29	. .	29	12	2	39	1	1	. .	2
Marshall	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Martin	24	19	. .	4	39	. .	8	35	. .	23	20	. .	43	15	28	. .	41	40	6	3	. .	11	32	. .	30	13	. .	14	3	26	. .	. .
Miami	68	17	5	54	32	4	13	76	1	66	14	10	90	76	12	2	87	87	3	6	1	25	64	1	55	25	10	68	16	5	. .	1
Monroe	28	17	19	22	41	1	2	58	4	43	18	3	64	50	11	3	60	59	10	6	. .	40	21	3	30	27	7	14	2	45	3	. .
Montgomery	56	38	5	83	14	2	22	73	4	56	39	4	99	52	41	6	99	99	11	24	. .	27	72	. .	59	34	6	72	25	2	. .	. .
Morgan	16	18	10	19	25	. .	19	25	. .	27	16	1	44	27	16	1	44	44	7	5	. .	24	15	5	24	20	. .	21	3	17	1	2

Newton	13	53	4	18	52	. .	7	60	3	1	65	4	70	67	2	1	67	67	1	6	1	5	64	1	56	9	5	14	44	12	. .	. .
Noble	42	10	. .	16	35	1	4	47	1	44	8	. .	52	47	4	1	52	52	. .	8	. .	4	48	. .	37	11	4	18	27	4	. .	3
Ohio	20	2	2	7	16	1	5	17	2	18	5	1	24	18	6	. .	22	23	3	.	1	14	8	2	12	8	4	6	5	. .	12	2
Orange	36	46	14	10	86	. .	15	81	. .	57	37	2	96	47	49	. .	93	93	9	13	1	42	52	2	70	22	4	10	. .	66	18	1
Owen	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Parke	.	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Perry	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Pike	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Porter	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Posey	37	53	1	33	58	. .	3	88	. .	82	9	. .	91	87	3	1	89	90	8	5	1	48	43	. .	65	20	6	46	2	2	37	4
Pulaski	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Putnam	55	16	7	58	20	.	19	57	2	50	22	6	78	51	26	1	63	67	14	23	. .	27	51	. .	55	17	6	52	9	15	2	. .
Randolph	77	36	8	83	35	2	19	98	3	87	27	6	120	102	14	4	108	111	5	50	. .	21	97	2	88	29	3	78	37	2	. .	3
Ripley	43	31	14	13	73	2	23	65	. .	73	14	1	88	59	27	2	88	88	3	15	. .	11	71	6	52	28	8	50	22	14	2	. .
Rush	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Scott	8	3	. .	1	10	. .	. .	11	. .	1	10	. .	11	4	6	1	11	11	. .	1	. .	4	6	1	9	. .	2	7	2	2	. .	. .
Shelby	58	33	6	77	19	2	30	66	1	60	34	3	97	64	29	4	93	90	11	10	1	31	61	5	49	36	12	72	18	3	. .	4
Spencer	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Starke	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Steuben	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
St. Joseph	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Sullivan	53	31	. .	26	58	. .	11	73	. .	66	18	. .	84	72	12	. .	84	84	16	6	. .	27	57	. .	69	15	. .	63	17	4	. .	. .
Switzerland	26	12	1	9	30	. .	. .	39	. .	28	10	1	39	35	4	. .	39	39	2	4	. .	8	31	. .	32	7	. .	21	1	1	7	9
Tippecanoe	8	. .	. .	7	1	. .	1	7	. .	1	7	. .	8	7	1	. .	8	8	. .	1	. .	. .	8	. .	. .	8	. .	6	1	1	. .	. .
Tipton	15	7	1	9	13	1	15	8	. .	15	8	. .	23	12	9	2	23	23	. .	4	. .	10	13	.	16	6	1	11	12	. .	. .	. .
Union	10	3	2	7	8	. .	2	13	. .	7	8	. .	15	10	4	1	14	14	1	2	1	12	3	. .	11	4	. .	11	1	3	. .	. .
Vanderburg	27	19	5	20	31	. .	3	48	. .	40	10	1	51	41	8	2	46	47	10	18	. .	32	18	1	36	13	2	16	3	3	26	3
Vermillion	19	9	2	25	5	. .	3	25	2	21	8	1	30	25	5	. .	30	30	2	. .	. .	19	10	1	19	11	. .	22	5	. .	. .	3
Vigo	33	21	5	42	15	2	14	45	. .	29	29	1	59	37	18	4	56	56	7	23	1	35	24	. .	41	17	1	41	14	4	.	. .
Wabash	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Warren	37	29	8	53	21	. .	4	68	2	66	7	1	74	70	3	1	74	74	3	6	. .	13	56	5	45	21	8	63	5	5	1	. .
Warrick	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Washington	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Wayne	83	24	8	103	10	2	2	112	1	81	33	1	115	102	11	2	102	111	7	20	. .	47	68	. .	84	20	1	91	11	12	. .	1
Wells	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
White	39	16	7	20	42	. .	3	57	2	53	8	1	62	56	5	1	62	62	. .	2	. .	21	41	. .	54	6	2	49	13	. .	. .	. .
Whitley	49	17	5	27	43	1	17	53	1	39	28	4	71	41	28	2	71	71	6	9	. .	13	58	. .	49	21	1	49	21	. .	1	. .
Total	2056	1138	275	1793	1626	50	489	2942	38	2365	1012	92	3469	2819	588	62	3402	3398	228	607	18	1026	2402	41	2408	903	158	2089	816	350	546	64

SURVEY OF PUBLIC SCHOOL HOUSES BY COUNTIES—Continued.

COUNTIES.	15½			16			17			17½			18			18½			19			20			22		
	Yes.	No.	Not reported.	Yes.	No.	Not reported.	Yes.	No.	Not reported.	Yes.	No.	Not reported.	Yes.	No.	Not reported.	Yes.	No.	Not reported.	Yes.	No.	Not reported.	Yes.	No.	Not reported.	Yes.	No.	Not reported.
Adams	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Alllen	9	. .	. .	9	. .	. .	9	. .	. .	9	. .	. .	9	. .	. .	. .	. .	9	. .	. .	9	9	. .	. .	9	. .	. .
Bartholomew	87	4	5	85	7	4	90	6	. .	80	15	1	37	57	2	25	51	20	57	37	2	95	1	. .	38	57	1
Benton	23	2	5	12	15	3	28	2	. .	21	7	2	22	5	3	3	14	13	22	5	3	23	5	2	3	27	. .
Blackford	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Boone	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Brown	37	2	12	41	3	7	20	31	. .	15	5	. .	8	12	. .	1	5	14	. .	47	4	26	9	16	1	49	1
Carroll	32	10	20	40	4	18	57	4	1	30	32	. .	48	9	5	14	20	28	12	46	4	41	20	1	36	26	. .
Cass	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Clark	56	9	27	68	12	12	75	17	. .	42	35	15	22	60	10	21	50	21	19	73	. .	69	17	6	2	88	2
Clay	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Clinton	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Crawford	11	1	19	18	8	5	13	17	1	3	10	18	3	11	17	2	5	24	6	19	6	15	12	4	3	28	. .
Daviess	30	5	7	32	4	6	20	19	3	14	24	4	7	30	5	4	28	10	9	30	3	34	8	. .	. .	41	1
Dearborn	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Decatur	68	5	8	68	8	5	76	5	. .	. .	. .	81	30	45	6	16	27	38	42	34	5	64	4	13	15	59	7
Dekalb	32	3	21	30	4	22	56	. .	. .	27	22	7	27	18	11	3	35	18	1	52	3	51	1	4	6	41	9
Delaware	90	. .	20	86	13	11	99	11	. .	74	19	17	38	59	13	45	29	36	31	71	8	87	11	12	14	89	7
Dubois	61	10	27	79	14	5	43	55	. .	34	52	12	11	76	11	18	63	17	57	41	. .	95	3	. .	13	83	2
Elkhart	28	. .	4	27	. .	2	28	1	. .	23	3	3	29	.	. .	13	2	14	17	7	5	28	. .	1	5	22	2
Fayette	44	4	7	49	2	4	53	2	. .	38	17	. .	19	35	1	20	30	5	37	18	. .	47	8	. .	5	50	. .
Floyd	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Fountain	85	3	19	95	6	6	79	28	. .	53	27	27	63	17	27	18	39	50	5	101	1	87	20	. .	9	98	. .
Franklin	23	6	25	33	5	16	52	1	1	33	19	2	31	19	4	10	35	9	41	9	4	51	1	2	2	51	1
Fulton	23	5	16	28	6	12	42	4	. .	22	19	5	23	19	4	6	18	22	6	33	7	30	8	8	. .	44	2

Gibson	55	14	12	68	10	3	60	21	. .	31	30	20	35	26	20	11	37	33	14	62	5	65	9	7	52	29	. .
Grant	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Greene	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Hamilton	27	7	23	32	5	20	54	1	2	31	23	3	29	14	14	2	34	21	25	27	5	45	8	4	4	50	3
Hancock	74	2	10	83	. .	3	83	. .	3	62	7	17	61	18	7	54	10	22	85	1	. .	80	. .	6	74	5	7
Harrison	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Hendricks	91	11	4	93	10	3	101	5	. .	79	22	5	57	46	3	41	12	53	53	50	3	102	. .	4	63	35	8
Henry	66	5	5	70	6	. .	71	5	. .	65	8	3	37	35	4	38	25	13	22	52	2	69	5	2	19	53	4
Howard	51	29	. .	58	22	. .	75	5	. .	25	55	. .	49	31	. .	5	75	. .	27	53	. .	52	28	. .	28	52	. .
Huntington	109	. .	31	07	1	4	111	1	. .	110	. .	2	110	. .	2	1	107	4	1	111	. .	112	. .	. .	2	110	. .
Jackson	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Jasper	76	. .	16	82	4	6	60	27	5	55	6	31	42	20	30	11	46	35	71	16	5	77	12	3	12	77	3
Jay	20	5	4	21	4	4	26	3	. .	10	16	3	4	22	3	3	10	16	23	6	. .	27	1	1	2	27	. .
Jefferson	12	2	11	16	8	1	19	6	. .	15	4	. .	7	12	. .	7	9	3	7	18	. .	25	. .	. .	8	17	. .
Jennings	101	. .	2	103	. .	. .	85	18	. .	5	98	. .	3	100	. .	2	101	. .	. .	103	. .	101	1	1	12	91	. .
Johnson	60	11	13	69	10	5	77	7	. .	46	34	4	61	21	2	17	53	14	35	44	5	75	7	2	11	73	. .
Knox	63	3	6	65	4	3	58	11	3	48	11	13	32	27	13	24	17	31	27	40	5	65	2	5	15	50	7
Kosciusko	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Lagrange	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Lake	65	1	20	64	5	17	80	4	2	46	31	9	22	55	9	11	52	23	13	69	4	77	4	5	3	81	2
Laporte	78	. .	5	77	2	4	83	. .	. .	75	6	2	62	14	7	30	9	44	39	36	8	75	8	. .	35	48	. .
Lawrence	5	2	13	13	2	5	9	11	. .	5	6	9	3	9	8	4	2	14	5	13	2	11	4	5	2	17	1
Madison	43	11	11	36	13	16	56	9	. .	27	30	8	38	19	8	13	39	13	12	46	7	52	6	7	23	37	5
Marion	25	14	4	35	6	2	42	. .	1	21	21	1	27	16	. .	3	20	20	10	31	2	34	6	3	19	22	2
Marshall	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Martin	12	6	25	16	17	10	12	31	. .	5	6	32	7	5	31	1	11	31	11	32	. .	33	10	. .	3	40	. .
Miami	73	2	15	74	8	8	83	7	. .	66	20	4	63	20	7	19	36	35	65	20	5	75	3	12	11	63	16
Monroe	22	7	35	47	9	8	24	38	2	20	4	40	14	10	40	12	10	42	26	30	8	49	10	5	2	51	11
Montgomery	68	14	17	74	12	13	94	4	1	51	40	8	61	33	5	14	51	34	34	60	5	66	21	12	9	89	1
Morgan	20	9	15	24	11	9	25	18	1	15	11	18	16	10	18	7	10	27	24	15	5	37	1	6	9	33	2
Newton	15	2	53	15	3	52	60	10	. .	36	20	14	27	11	32	9	43	18	49	16	5	68	. .	2	2	68	. .
Noble	27	7	18	52	. .	. .	52	. .	. .	52	. .	. .	52	. .	. .	52	. .	. .	52	. .	. .	52	. .	. .	52	. .	. .
Ohio	12	1	11	17	3	4	24	. .	. .	7	17	. .	8	16	. .	. .	22	2	2	22	. .	21	3	. .	9	15	. .
Orange	25	5	66	74	87	6	43	52	1	31	17	48	12	36	48	10	18	68	32	54	10	36	39	21	4	90	2
Owen	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Parke	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Perry	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Pike	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Porter	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Posey	52	3	36	61	9	21	70	17	4	65	8	18	59	17	15	53	18	20	56	20	15	73	9	9	39	48	4
Pulaski	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Putnam	42	16	20	48	16	14	57	21	. .	31	23	24	24	29	1	13	25	9	25	48	5	54	6	18	10	68	. .
Randolph	87	11	22	79	15	26	109	8	3	73	34	13	50	58	12	17	58	45	23	90	7	93	22	5	78	40	2

SURVEY OF PUBLIC SCHOOL HOUSES BY COUNTIES—Continued.

COUNTIES.	15½			16			17			17½			18			18½			19			20			22		
	Yes.	No.	Not reported.	Yes.	No.	Not reported.	Yes.	No.	Not reported.	Yes.	No.	Not reported.	Yes.	No.	Not reported.	Yes.	No.	Not reported.	Yes.	No.	Not reported.	Yes.	No.	Not reported.	Yes.	No.	Not reported.
Ripley	55	10	23	62	12	14	74	14	. .	53	20	15	18	53	17	5	49	34	63	17	8	76	8	4	2	86	. .
Rush	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Scott	6	1	4	7	2	2	10	1	. .	4	6	1	3	7	. .	1	7	2	3	6	2	6	4	1	10	1	. .
Shelby	67	19	11	73	12	12	95	. .	2	52	41	4	79	13	5	10	46	41	20	65	12	61	20	16	23	68	6
Spencer	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Starke	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Steuben	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
St. Joseph	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Sullivan	66	18	. .	63	21	. .	72	12	. .	50	34	. .	25	59	. .	30	30	24	18	59	7	71	11	2	19	65	. .
Switzerland	29	1	9	33	1	5	38	1	. .	26	13	. .	16	22	1	5	27	7	21	16	2	29	6	4	24	13	2
Tippecanoe	7	. .	1	8	. .	. .	8	. .	. .	5	3	. .	7	1	. .	7	1	. .	8	. .	. .	7	1	. .	8	. .	. .
Tipton	14	5	4	11	8	4	18	5	. .	6	13	4	8	10	5	3	14	6	4	19	. .	15	8	. .	4	19	. .
Union	7	5	3	11	4	. .	14	1	. .	5	9	. .	5	9	. .	1	10	3	4	9	2	12	3	. .	1	14	. .
Vanderburg	27	2	22	43	3	5	50	1	. .	36	13	2	24	23	4	9	24	18	29	17	5	47	2	2	16	33	2
Vermillion	21	5	4	26	1	3	30	. .	. .	16	13	1	17	13	. .	5	21	4	14	14	2	25	4	1	25	4	1
Vigo	31	14	14	38	14	7	56	3	. .	27	30	2	37	20	2	15	21	23	28	31	5	49	7	3	27	30	2
Wabash	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Warren	65	. .	9	64	1	9	64	9	1	57	8	9	59	8	7	21	23	30	45	17	12	67	. .	7	8	44	22
Warrick	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Washington	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Wayne	100	3	12	104	6	5	114	1	. .	86	28	1	43	70	2	65	35	15	27	86	2	105	6	4	36	79	. .
Wells	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
White	48	. .	14	41	2	19	53	8	1	42	11	9	29	27	6	10	23	29	16	42	4	56	4	2	27	32	3
Whitley	53	2	16	43	8	20	55	16	. .	26	31	14	34	23	14	5	26	40	21	45	5	56	6	9	6	63	2
Total	2409	289	771	2660	362	447	2916	517	36	1908	1019	542	1669	1323	477	750	1589	1130	1365	1895	209	2871	383	215	846	2474	149

The Surroundings.—The county health officers were requested to enlist the interest of the school authorities in making the surveys, and in many cases they were made by the teachers, and in others, the Township Trustees, made them. It is with great pleasure that we testify to the prompt and cheerful co-operations of the various County Superintendents, Trustees and teachers. The reports are exceedingly instructive and suggestive. These surveys are but partially completed, bnt from those already received, the opinion for the hygienic supervision of schools is fully confirmed. The vast majority of these houses have been built several years. When located, land was cheap. Nearly all are in localities where land can be easily obtained at a low figure at present. Yet, these surveys show that 64 per cent. of the houses are upon lots of one-half an acre or less, and 36 per cent. of them upon grounds of more than one-half an acre. These figures point out a grave error in regard to the size of school grounds. No rural school-house yard should contain less than one acre. The grounds should be large enough to afford room for drainage and ornamentation, and furnish a play ground for each of the sexes, and to secure a guarantee against the pollution of water-supply, and privacy from neighboring surroundings. These things require at least one acre. Yet our survey shows that nearly seven-tenths of the grounds are not that large. School Trustees when determining upon a location for a school-house, should always insist that not less than one acre should be secured for the purpose.

All thoughtful persons will at once recognize the necessity for having the school-house yard fenced. Without this protection, the house is exposed to injury from many causes. The grounds, unprotected by a fence, are poorly drained and uncared for. The water supply becomes subject to contamination. Water-closets are very liable to be injured or made foul, and the absence of a fence around school grounds gives them a dreary, uncared-for appearance, that is apt to make the school-house uninviting and even repulsive to the ardent nature of the children. Yet, our returns prove that 26 per cent. of the school-houses are not fenced, and many of the others are in enclosures containing different kinds of buildings.

Scarcely any provision has been made for suitable wells. Very few of the yards are properly drained. Under-draining is almost universally wanting, and 14 per cent. of the yards have ponds of stagnant water, during a considerable portion of the time. These are most serious faults. No arrangements are made for drying the clothing of the children, and the result is that many of them are compelled to sit for hours with wet clothing and damp, cold feet.

Ventilation.—"Better ventilation" and "a supply of pure fresh air" is the almost universal demand from all counties in the State. Kind Providence has surrounded our world with an illimitable ocean of pure air. Why deny it to our children? Our reports show that in 30 per cent. of our school houses, no facilities for ventilation are provided, and in the remaining 70 per cent., but few houses are supplied with any other method than that of raising or lowering the windows. The result is that nearly every school-room in the State is full of foul air. In many of the houses less than one hundred cubic feet of air are allotted to each pupil, and in some others but seventy feet are supplied. A large number of the houses afford but ten feet of floor space, and in some it is restricted to six feet for each pupil. These facts are startling, and are ample causes for very much bad health among the pupils.

Heating.—Stoves are almost universally used for heating the rooms. In the larger towns and cities furnaces are occasionally used. Of the stoves, 17 per cent. were in "bad order," thereby endangering the lives of the children, and the destruction of the house by fire. In very few places were there any arrangements for supplying moisture to the atmosphere. The stoves were usually placed near the center of the room, and a very general complaint by teachers was, that the pupils nearest the stove suffered from excessive heat, whilst those remote were cold. But very few instances were there, when provision was made for warming the air before it was introduced into the room.

Location of Windows.—In 97 per cent. of the houses the windows are situated upon the right, as well as upon the left of the pupils, and in 6 per cent. the windows are directly in front of the pupils, while only in 17 per cent. is it admitted from the rear. When we remember that the rays of light should, if possible, be admitted from the rear and left of the pupils, the gross ophthalmic errors in this connection, will at once become apparent. Again, in scarcely any houses are there suitable shades or curtains to the windows. The light is allowed to fall directly upon the persons, books, slates and papers of the pupils. From the above facts you will readily see how the eyesight of the pupils is endangered.

Blackboards.—The location and condition of the blackboards are additional sources of injury to the eyesight of the pupils. In no less than 30 per cent. of the houses these blackboards are placed between the windows, and in 27 per cent. of these their surfaces are glossy. These two errors must necessarily cause great injury to the vision among the three-quarters of a million pupils of the common schools of Indiana. This branch of the subject of school hygiene has not been so obtrusively pushed upon public notice as the gravity of the evil demands.

Water Supply.—Pure, cool water is a boon that school children are too often denied. In our State, we find that there are wells at only 60 per cent. of the school houses, and of these 12 per cent. have never been cleaned and are polluted. Twenty-three per cent. of the houses depended for water upon the neighbors' wells; 10 per cent. of the houses depended upon springs near the houses; 4 per cent. of the houses had cisterns for their source of supply, whilst twelve houses depended upon an open ditch for their potable water. Numerous instances were reported where dead animals were found in the wells and some of them were in close proximity to barn-yards, cesspools and other sources of contamination, while six of the wells evidently were polluted by the drainage from grave-yards immediately adjoining.

Water Closets.—In this advanced stage of civilization it may seem like supererogation to say that every school house should have suitable water-closets for each of the sexes. These should be properly constructed, with good vaults, and should be kept clean and disinfected. Yet, these sanitary surveys show that 20 per cent. of the school houses have no water-closets, and that, where they have them. 40 per cent. of them are in bad repair; that 70 per cent. of these closets have no vaults, and that 85 per cent. of the vaults were never cleaned or disinfected. Many of the closets were filthy and unfit for use; in several of the vaults there were dead animals—a sheep in one, several dogs, cats, etc., in others. It is a standing reproach upon our civilization that school children should be compelled to attend to the calls of nature under the most painful embarrassment of having no more provision made for privacy than is given to the brutes of the field, or that a pure, neat, clean, innocent girl should have to go into a revolting, filthy, nauseous water-closet, or sacrifice her modesty, or neglect these duties to the peril of her health. We can not too strongly condemn such a condition of affairs, as alike detrimental to health, morals and delicacy. A few pounds of sulphate of iron, and a few minutes work semi-weekly, would keep the water-closets of school houses from becoming a revolting nuisance, or a source of ill health.

Vaccinations.—The reasons for requiring the vaccination of all persons before being admitted to the school-room are so obvious that their correctness is usually granted. Yet, our surveys demonstrate that in 58 per cent. of the schools of the State a vaccination of the pupils has not been required. The consequence is that in case small-pox should break out in these neighborhoods, the schools would have to be closed. No child should be allowed to enter school until it has been successfully vaccinated. This is now acknowledged in all cities and towns, and they have generally, by municipal ordinance enforced it. In the city of Indianapolis, although small-pox had ninety-five distinct centers of infection in the last two years, yet not a school child has suffered. Previous vaccination has been demanded of all children admitted to her schools. The State Board of Health has adopted the following rule upon that subject:

"No person until after he has been successfully vaccinated shall be admitted into any public or private school or institution of learning within this State, either in capacity of teacher or pupil."

Dangerous Diseases.—School children afflicted with loathsome or infectious diseases should be excluded from the schools, and when diphtheria, scarlet fever, or small-pox is prevailing in a household, no one from that place should be allowed to attend school. Very many instances are recorded where a disregard of this precept resulted in innocent parties becoming infected with fatal sickness. Our surveys show that in 12 per cent. of the schools, none of these precautions against infectious diseases are adopted. The following rules have been adopted by the State Board of Health in regard to this subject:

"No person afflicted with any contagious or infectious disease dangerous to public health, shall be admitted into any public or private school within the jurisdiction of this State.

"No parent, guardian, tutor or other person having charge or control of any child or children, shall allow or permit any such child or children to go from any house or building infected with scarlet-fever, diphtheria, cholera, small-pox or other contagious or infectious disease dangerous to public health, to attend any public or private school within the jurisdiction of this State.

"No parent, guardian, tutor or other person within the jurisdiction of this Board, having charge or control of any child or children, shall allow any such child or children to go from any house or building infected with scarlet-fever, diphtheria, cholera, small-pox or any other contagious or infectious disease, to attend any public school, church or any place of amusement, or to travel in any street car or public vehicie.

"No person within the jurisdiction of this Board shall be allowed or permitted to go from any house or building infected with scarlet-fever, diphtheria, cholera, small-pox or any other contagious or infectious disease dangerous to public health, to attend any public school, church or any place of amusement, or travel in any street car of public vehicle."

In eighteen counties where small-pox prevailed within the year 1883-4, so well was this rule enforced that in but one county did any school child die from the malady, and the health officials in that county wrote that this was because "it was not successfully vaccinated."

Swinging of Doors.—The statutes of our State require that "the doors in school-houses, seminaries, colleges, etc., shall be so hung that the same shall swing outwardly." These surveys prove that in 74 per cent. of the school-houses the law is disregarded; in small, one-story houses, the necessity for complying with the law is not great, but, in all buildings of more than one story or one room, it should be complied with by all means.

The Board most earnestly recommends that the Legislature shall provide for the addition of the study of Hygiene and Sanitary Science to the present course of study in the public schools. The education of pupils in Hygiene can not be accomplished by the present literary course.

Take, for instance, Monroe county, lying in the shadow of the State University, which institution was chartered and erected in 1828—fifty-six years ago. The sanitary surveys of the school-houses in that county reveal the fact that 64 per cent. of the yards are not fenced; 30 per cent. of the houses are not well ventilated; 18 per cent. of the stoves are unsafe and in bad repair; 100 per cent. of the houses wrongly lighted; 66 of them have blackboards in wrong places; 45 per cent. of the blackboards have glassy surfaces; 75 per cent. get their water supply from springs; 64 per cent. of these springs are not fenced or protected from overflows or impurities; 61 per cent. have no privies; 17 per cent. of these privies are in bad order; 42 per cent. of the privies have no vaults; 41 per cent. are never disinfected; 16 per cent. of instances where children are not excluded, coming from families where infectious or contagious diseases are prevailing. From Monroe county one school-house survey reads as follows:

"Our house is unfenced. Stove in bad order. Our source of water supply is an unfenced spring, which is a very poor excuse for water-supply, as it is situated in an open pasture where hogs, cattle, geese and other animals congregate and leave their offal. I am satisfied that a great number of school children here have suffered from the want of good, pure water."

Another from this county says: "Our house is in an open field. A pond of stock-water within fifty feet of the door. There are numerous cracks in the floor and around the door, and the plastering is off in several places. The house is high off the ground except at one end. It has never been underpinned. The shelter thus afforded has evidently been utilized for many years past as a lodging place for numerous hogs that inhabit the woods, lanes and by-ways adjacent. Our source of water supply is a small creek, into which, a short distance above from whence the water is dipped up for the school, a barn-yard drains, and about one-eighth of a mile above is a cemetery, a part of which is evidently drained by this creek."

Such a condition of affairs in a county which, for more than half a century, has had the State University in it to enlighten the people, at once demonstrates the fact that the hand of some sanitary officer, clothed and strengthened by the authority of the law, is demanded to redress these gross wrongs upon the school children of our State.

The foregoing extracts are but a fair sample of the statements received with the reports of the sanitary surveys, and they demonstrate conclusively the necessity of disseminating a knowledge of hygiene and sanitation through the medium of the public schools, and also of placing the buildings and surroundings immediately under the supervision and control of a competent sanitary officer. To meet the last necessity the Board has adopted the following rule:

"The county, city and town health officers, within the jurisdiction of this Board, shall exercise especial hygienic supervision over the schools and school-houses within their respective jurisdictions, and where hygienic faults are found said officers shall immediately call the attention of the school authorities thereto."

The result of these surveys has been very gratifying in having aroused a general interest in school hygiene all over the State. Newspapers, educational journals, school officials, physicians, teachers, and many others, have spoken encouragingly of the work. Many of the errors have been corrected, and the schools of the State are in a better sanitary condition than ever before. At the beginning of the present school year the following order was issued and served upon every township and town school officer in the State:

OFFICE OF

INDIANA STATE BOARD OF HEALTH,

INDIANAPOLIS, September 13, 1884.

To County Health Officers:

The results of the sanitary surveys of the school-houses of Indiana demonstrate the fact that very many hygenic faults exist in connection with them and their surroundings. Many of these errors have been corrected, and school authorities have cheerfully complied with the requests of health officers in this regard; but a new school year is about to be ushered in. Many of the houses were not occupied during the summer months, and we are satisfied that their surrounding and conditions need sanitary supervision. It is very desirable, therefore, that township and town trustees, and such other school authorities as are in your county, shall place in a good sanitary condition the various school-houses under their control. The following points require especial attention:

1. Purity of the water supply.
2. Ventilation of the school-rooms.
3. Repairing of the buildings.
4. Drainage of the yard and grounds.
5. Providing suitable water-closets, and keeping them in good condition.
6. Heating of the school-rooms.
7. Over-crowding of rooms.
8. Location and condition of the black-boards.
9. Lighting of the rooms.
10. Seating the rooms.

To insure a favorable hygienic condition for the schools, the following essentials are demanded:

A.—To clean out all sources of water supply, and place them in good condition; and where houses have no supply of their own, to at once furnish one.

B.—In the absence of a better system, to prepare the windows and transoms so that ventilation can be had without causing draughts of cold air to come in contact with the pupils.

C.—To place the buildings in good repair, with tight floors, good roofs, and underpinnings.

D.—To see that the yard and grounds do not admit of standing water, and to prepare gravel or board walks to keep the children's feet out of the mud.

E.—Suitable water-closets for each of the sexes should be provided with every school-house. They should be situated far enough away from the house to secure privacy, and not be a nuisance. They should be kept in good repair, cleaned and disinfected at least twice a month.

F.—The rooms should be so warmed that all may be kept comfortable; stoves and furnaces safe and in good order.

G.—The rooms should not be over-crowded. Not less than fourteen square feet of floor space and two hundred and fifteen cubic feet of breathing space should be allowed each pupil.

H.—Black-boards should not be placed between the windows, and the surfaces of the boards should be a DEAD BLACK, not GLOSSY.

I.—The light should, if possible, be admitted from the rear of the pupil; NEVER from the front.

J.—Desk and seats of different heights should be furnished, to suit the sizes and ages of pupils.

In order to insure immediate action, there is attached to this a blank order, which you will please fill up and issue to the proper authorities, and cause its enforcement.

By order of the Board. E. S. Elder, M. D.,
Secretary and Executive Officer.

____________________Ind., Sept. _____, 1884.

To____________________________

Trustee of____________, __________ County, Ind.

You will please cause the foregoing order of the Indiana State Board of Health to be rigidly enforced in your jurisdiction.

By order of the ______________ County Board of Health.

________________________M. D.,
Secretary and Executive Officer.

In the opinion of the Board, no more inviting field for the work of the sanitarian exists than is found in that presented by the common schools of our country, and the health officials who correct the abuses and evils incident thereto will confer a material benefit upon society and secure the approbation of all. The patrons of the schools need only to have their attention called to these matters in order to insure their hearty co-operation in overcoming them. When the people see these evils as they are pointed out in the sanitary surveys, they can not fail to appreciate their baneful effects upon the health of the children of the schools, and hasten to lend a helping-hand in their immediate eradication.

The foregoing observations and suggestions are respectfully submitted as worthy of a very careful consideration. If they appear plain, simple and common-place, remember that in very many places they have been unheeded; in fact, they have been very generally unheeded. Boards of Health should prosecute this line of work, and continually strive to induce a reform in practical school hygiene, and secure the adoption of a higher standard.

As before stated, the Board believes that the public schools of Indiana will compare favorably with those of her sister States, and dark as is the picture presented by these returns, to display its counterpart it is necessary only that some official hand shall draw aside the curtain by causing a similar survey to be made in any of the adjoining commonwealths.

SANITARY SURVEY OF STATE PENAL INSTITUTIONS.

INDIANA STATE PRISON SOUTH.

In this institution there are five hundred and seventy-five convicts, all male. The average for the past ten years has been six hundred and one. The oldest is seventy-eight. The youngest is fourteen years old. Three insane prisoners are confined there. The sanitary condition seems to be as good as possible under the circumstances. There appears to be a necessity for the construction of a sewer from the prison to the river. The sewerage is said to be a nuisance to the citizens residing in the vicinity. The officer who made the survey adds, under the head of suggestions in reference to the survey:

"I would recommend the removal of the hospital to a more quiet place on the prison grounds. It is now situated near the tilt-hammer and machine shops and over the engine, boiler and pump rooms, and also over the wash-house in the same building. The noise of the shops, and the offensive fumes and hot atmosphere from the wash-house renders the sanitary condition of the hospital particularly bad. The hospital is situated immediately under the prison chapel, which is very annoying during religious services on the Sabbath."

INDIANA STATE PRISON NORTH.

In this institution there are at present six hundred and eighty-three prisoners, all male. Average number for ten years past fifty-nine. Two insane prisoners. Only four convicts died from disease during the past year. The sanitary and hygienic condition of this institution seems to be very good and is probably as nearly perfect as can be, excepting the improvement suggested by the officer making the survey, which is as follows: "A bath-house is needed badly, also a separate building for the insane, otherwise the building is in good sanitary condition."

INDIANA REFORM SCHOOL FOR BOYS.

There are in this institution four hundred and forty boys, ranging in ages from nine to twenty years. Two deaths from typhoid fever occurred during the year, which is a very favorable showing. The sanitary and hygienic condition of the school and surroundings are good, and the institution is a monument of honor to the Christian philanthropy which impelled our General Assembly to incorporate it among our State institutions.

INDIANA REFORMATORY INSTITUTE FOR WOMEN AND GIRLS.

There are in the penal department of this institution fifty, and in the reformatory department one hundred and forty-two women and girls. The oldest inmate is seventy-seven, and the youngest seven years of age. The old and young are separated. Two insane persons are among the inmates. No deaths occurred among the prisoners during the year. Since the completion of the sewer, the hygienic condition of the prisoners and buildings appear to be very good. We note with pleasure the good influence springing from this humane, Christian method of at once relieving society from the baneful influences exerted by the class of persons which are now placed in this institution, and of reclaiming and restoring them to society as useful and respected members.

FLOODS OF 1884.

Early in February last, heavy rains began to prevail in the Ohio valley, the tributaries of the Ohio river poured an enormous volume of water into that stream, and this fact, coupled with the melting snow in the mountains of Pennsylvania, caused its waters to reach an altitude heretofore unknown. As a result, the bottoms from Lawrenceburgh to Wabash Island in this State were completely submerged, and the inhabitants of that region were compelled to find shelter on high points of ground surrounded but not covered by water. Here they were crowded together in large numbers in churches, public halls, tents and other places of temporary refuge. Knowing the unhygienic influences to which these people were exposed, and that small-pox was, at the time, prevailing along the Kentucky border, the Secretary of this Board issued a special letter of instructions to the health officers of the submerged districts, and the Board ordered the purchase and distribution of thirty dollars' worth of vaccine virus, and the prompt vaccination of all refugees from the flood. The Secretary visited every town from Lawrenceburgh to Wabash Island, and rendered such services as the occasion demanded. The vaccination and inspection were so rigid that small-pox was completely controlled, and the health of the refugees from the flood preserved. Fortunately, the floods came so gradually that the people had time to remove most of their personal effects, and so thorough was the cleaning out of the cess-pools, ponds, privies and filthy surroundings, and the renovation of private residences when the people returned to their homes, that the general health throughout the flooded district was improved.

SANITARY CONVENTIONS.

With a view to interest the public in the subject of Hygiene, the Board resolved to hold a series of Sanitary Conventions at such places as the interest would warrant. Upon invitation, the first of these was held at Anderson, on the 24th of April. The sessions of the convention were well attended and a genal interest in sanitary work was awakened. The following was the

PROGRAMME OF EXERCISES.

10 A. M.—Convention called to order.

Prayer . . . . Rev. C. A. Kanouse.
Address by the Chairman of the Committee on Reception . . . C. E. Diven M. D.
10:30 A. M.—Diphtheria . . . . Dr. W. A. Hunt.

DISCUSSION.

11 A. M.—On the Duration of Infectiousness of Scarlatina, W. W. Vinnedge, M. D., Lafayette, Ind.

DISCUSSION.

AFTERNOON SESSION.

1:15 P. M.—President's Address . . . . Hon. C. L. Henry.
1:30 P. M.—The American Hog—his inspection a necessity, or Trichina and Public Health, Hon. T. B. Redding, New Castle, Ind.

DISCUSSION.

2:00 P. M.—The Sanitary Construction of our Homes, T. W. Gronedyke, M. D., New Castle, Ind.

DISCUSSION.

2:30 P. M.—Location of Dwellings to avoid Malarial Diseases, Geo. F. Chittenden, M. D.

DISCUSSION.

3:00 P. M.—How to test the Purity of Atmosphere in Houses, Prof. Robt. L. Warder, Purdue University.

DISCUSSION.

3:30 P. M.—The Sanitary Arrangement of School Houses, Jas. F. Hibberd, M. D., Richmond, Ind.

DISCUSSION.

SHORT VOLUNTEER SPEECHES.

EVENING SESSION.

7:30 P. M.—Song . . . . Quartette.
7:40 P. M.—The Influence of Tobacco and Alcohol on the Human Race, J. McL. Moulder, Kokomo.

REMARKS.

8:10 P. M.—Legal Sanitation, E. S. Elder, M. D., Secretary Indiana State Board of Health.

CLOSING REMARKS AND EXERCISES.

Song . . . . Quartette.

C. E. DIVEN, M. D.,
Sec. and Executive Officer.

The second convention of the series was held at Greensburg, on the 26th of June, and, both in the matter of attendance and interest, was a very decided success. The Board has reason to believe that a very lively interest in sanitary work has been awakened in that part of the State. Below is the

PROGRAMME OF EXERCISES.

10 A. M.—Convention called to order.

Prayer . . . . Rev. J. G. Chafee.
Address by the Chairman of the Committee on Reception, J. C. French, M. D.
10 :30 A. M.—President's Address, Hon. Will Cumback.
11 A. M.—The Causes which Lead to the Increase of Insanity, Dr. Ryland T. Brown, Indianapolis.

DISCUSSION.

AFTERNOON SESSION.

1 P. M.—Alcohol:—Its Biological Genesis, Chemical Composition, and Physiological Effects, T. B. Redding, A. M.; PH. D.; F.R. M. S., New Castle, Ind.

DISCUSSION.

2 P. M.—A Plea for Shade Trees, Wm. Bracken, M. D., Greensburg, Ind.

DISCUSSION.

3 P. M.—On Re-vaccination, W. W. Vinnedge, M. D., Lafayette, Ind.

DISCUSSION.

4 P. M.—The Spread of Infectious Diseases, E. S. Elder, M. D., Secretary Indiana State Board of Health.

EVENING SESSION.

7 P. M.—Music	Greensburg Brass Band
Music	Erdman's Orchestra
Song	Logan, Hitt and Thomas
Recitation	Miss Zena Lambert
Music	Erdman's Orchestra

"The Value of Babies, where shall we begin and what shall we do to prevent so many of them dying?" Hon. Flavius J. Van Vorhis, Indianapolis.

Music	Orchestra
Song	Logan, Hitt and Thomas

CLOSING REMARKS, AND EXERCISES.

Music	Orchestra

J. C. FRENCH, M. D.,
Secretray and Executive Officer.

Other sanitary conventions have been arranged for and will be held in different parts of the State. By developing an interest in sanitary work, the Board hopes to carry out the designs of the law creating a Bureau of Public Health.

HOT WEATHER DISEASES.

The annual excessive increase of mortality during the latter months of summer and the early months of autumn has long been a reproach to sanitation, and, with a view of arresting as far as possible this loss of life, the Board issued the following circular-order on the 2d of July to every local Board of Health in the State:

OFFICE OF THE

INDIANA STATE BOARD OF HEALTH,

21 Masonic Temple, INDIANAPOLIS, IND.

(County Health Officers will furnish all Local Health Officers in their respective counties copies of this order.)

To County, City and Town Health Officers:

The depressing influences of hot weather always insure an increase of sickness among children, and all persons of feeble vitality, and under the influence of heat a very rapid decomposition of all refuse organic matter takes place, thus evolving noxious miasms, producing malarial, intestinal and other diseases, and inviting more serious ones.

In order to protect the public health, the State Board of Health deems it an important duty to place our State in the best possible sanitary condition—

Therefore, county, city and town health officers are hereby directed to take such immediate action as will insure this, by the adoption of the following measures:

1. By the removal of all accumulations of filth and decaying animal and vegetable matter from the roads, streets, alleys, door yards, vacant and unoccupied lots in their respective municipalities.

2. See that the gutters and drains are kept open and clean, and that they are frequently flushed and disinfected.

3. All privy vaults, sinks, cesspools and foul cisterns should be thoroughly cleaned and disinfected, in accordance with rules 20, 24 and 28 of the rules and regulations adopted by the State Board of Health.

4. All cesspools, stagnant ponds, hog pens, foul stables, unwholesome cellars, manure piles, dirty yards or lots, imperfect drains, bad sewers, and all other places suspected of being or becoming injurious to public health, should be promptly and thoroughly cleaned, disinfected and placed in a good sanitary condition.

5. All rank vegetation along the streets, sidewalks and gutters of cities and towns near inhabited dwellings should be cut and removed, or destroyed, and not be left to rot under the influence of the rains and heat of the summer sun.

6. The free use of the disinfectants mentioned in the PREVENTABLE DISEASE circulars, together with a liberal application of lime in and about the premises, is of prime importance.

7. The especial attention of health officers is called to the necessity of instructing the public of the dangers of violating the rules of hygiene, especially during hot weather, and health officers will rigidly enforce rules 20, 22, 23, 24, 25 and 28 of the rules and regulations of the Board.

8. County and city boards will please adopt the above instructions, and will order and cause their enforcement within their respective jurisdictions.

If any resistance should be made to the execution of this order, the health officer in the city, town or county is directed to take immediate steps for the punishment of the offenders, as provided in the Revised Statutes of 1881 for the punishment of "offenses against public health." See sections 2,065 to 2,075 inclusive.

By order of the Indiana State Board of Health.

E. S. ELDER, M. D.,
Secretary and Executive Officer.

July 2, 1884.

This order was at once promulgated throughout the State, and generally executed and obeyed, and the Board has reason to believe that much sickness was prevented thereby. The baneful influences of hot weather upon the public health have not heretofore been as fully appreciated as their importance demands. The deterioration of health under the influence of protracted summer heat is unavoidable, but the vitiation of the atmosphere by poisons thrown off by the decomposition of organic matter, under the influence of hot weather, should be guarded against by cleanliness and general sanitation.

ASIATIC CHOLERA.

In its last report, the Board referred to the fact that cholera still lingered in Egypt, and suggested that there was some danger that it would again assume an epidemic form, and devastate the civilized world. The fears in this regard have been partly realized in the appearance of the disease in several cities of France, thence spreading into Spain and Italy, in each of which countries it existed in epidemic form. Fifteen thousand persons have died from the disease, and its estimated cost to Europe is placed at $100,000,000. Within the past month it has reappeared in France, and at this time is evidently spreading rapidly. Should it become severe in France, the probabilities are that it will extend over Europe and to this continent, as has been the case heretofore when the epidemic prevailed in Europe. The disease is an exotic in Europe and America, but is so infectious that it is easily carried long distances in the persons, clothing and baggage of immigrants, strictly following lines of travel, while little is known of its true character or cause. It is known, however, that cholera is essentially a filth disease, reveling in unhygienic places and propagated rapidly when private or public neglect allows an unsanitary condition to prevail. It is possible to guard against its introduction by quarantine, but when we consider the extensive line of seacoast to be guarded, and the large commerce with foreign nations, the probabilities do not favor the escape of America when the disease prevails generally in Europe. All authorities, however, attach the utmost importance to private and public sanitation. The following circular was issued in July last by the Board:

OFFICE OF THE

INDIANA STATE BOARD OF HEALTH,

NO. 21 MASONIC TEMPLE.

INDIANAPOLIS, IND., July 23, 1884.

EPIDEMIC DISEASE CIRCULAR.

The continued advance of Asiatic Cholera in Europe in defiance of quarantine regulations, warrants the fears that as heretofore it will reach *America.* The *specific poison* is so infectious that it may be impossible to exclude it; and whilst every precaution should be taken to *prevent* its entrance, the *wisest* policy it to attain the *best possible sanitary* condition of *every* locality in *our State*, so that, as in 1832-1849-1854-1865-1873, the disease becomes domiciled in our midst, its *spread* may be prevented and the disease *combatted* under the most favorable auspices.

Therefore the personal duties of Health Officers are *especially* urgent in *enforcing* the hygienic measures and calling the attention of the public to the *imperative* demands of *sanitation.* A rigid enforcement of the order of this Board on July 2d, is *hereby ordered*, and a general inspection of the territory, under the supervision of the Local Health Officers is also demanded.

We refer you to the article of Cholera in our last annual report. See page 111 to 116. From that article we quote the following: To insure against the terrors of cholera, it is necessary to adopt measures to prevent its advent into our cities and towns. Or, should it unexpectedly secure an entrance, to adopt such measures as shall prevent its propagation and the spread of the infection. To accomplish the *first* a rigid quarantine against the infected localities, and exclusion of *persons* or *things*, which are the probable carriers of the germs of the disease, are imperatively demanded. This, when *effectually* done, is a reliable safeguard. But in these days of so rapid and wide transit, in the absence of military authority and discipline, it is practically impossible to guarantee a community complete protection by this method. We are compelled, therefore, to look to the *second* method of protection. In this, as well as in other miasmatic diseases, the first step in protective measures is to place the community and surroundings in as good a hygienic condition as is possible. The streets, alleys and vacant lots in and about the locality should be thoroughly drained, cleaned and disinfected. Cess-pools, gutters, ponds of water, masses of decaying animal and vegetable matter, should at once be abolished, cleaned and disinfected. Running streams of water, sewers, drains and pipes should be cleaned purified and constantly disinfected. The houses and surroundings should be rigidly inspected; and everything in way of vaults, cess-pools and hog-pens; the back yards, kitchens, cellars, sinks, pipes, barn and barn-yards, should at once be thoroughly and persistently cleaned and disinfected, and *kept* so by frequent official inspection. *Filth*, *squalor*, *personal uncleanliness*, and all other abominations against hygiene, should be firmly repressed.

Carefully examine all sources of *potable water* supply, and when it is found to be unwholesome or liable to pollution, at *once* cause the *abandonment* of the same. And now, in advance of *real* danger, before this most destructive of all *exotic diseases* has lighted in our midst, let every Local Board of Health in Indiana *insist* upon and *compel* householders, landlords, corparations and officials to enforce a complete and thorough compliance with our order of July 2d, viz:

1st. By the removal of all accumulations of filth and decaying animal and vegetable matter from the roads, streets, alleys, door-yards, vacant and unoccupied lots in their respective municipalities.

2d. See that the gutters and drains are kept open and clean, and that they are frequently flushed and disinfected.

3d. All privy vaults, sinks, cess-pools and foul cisterns should be thoroughly cleaned and disinfected, in accordance with Rules 20, 24 and 28 of the Rules and Regulations adopted by the State Board of Health.

4th. All cess-pools, stagnant ponds, hog-pens, foul stables, unwholesome cellars, manure piles, dirty yards or lots, imperfect drains, bad sewers, and all other places suspected of being or becoming injurious to public health, should be promptly and thoroughly cleaned, disinfected and placed in a good sanitary condition.

5th. All rank vegetation along the streets, sidewalks and gutters of cities and towns near inhabited dwellings should be cut and removed, or destroyed, and not be left to rot under the influence of the rains and heat of the summer sun.

6th. The free use of disinfectants mentioned in the preventable disease circulars, together with a liberal application of lime in and about the premises, is a prime importance.

7th. The especial attention of Health Officers is called to the necessity of instructing the public of the dangers of violating the rules of hygiene, especially during hot weather, and Health Officers will rigidly enforce Rules 20, 22, 23, 24, 25 and 28 of the Rules and Regulations of the Board.

Let there be such cleaning of sewers, drains and ditches, and such ventilating, drying, lime-washing and disinfecting of cellars and all damp and unclean places, that, if cholera *comes*, it shall find *no* soil or *foul* surface in our *entire State* in which to propagate its deadly germs.

Especial attention is called to the importance of compelling the proprietors of *steamboats*, the owners of *hotels* and *boarding-houses*, *landlords*, *railroad officials*, *school officials*, *sheriffs*, *county commissioners*, *city councils*, *town trustees*, and all others in control of property, to thoroughly clean and disinfect their premises, and prepare suitable water-closets for their employes, tenants and scholars, and to have them in good condition, and frequently cleaned and disinfected; *also*, the supply of drinking water should be kept free from pollution and sacredly guarded. *Remember* that *water* is the *most common* medium through which cholera spreads; hence, the absolute *necessity* of protecting the supply from contamination by drainage from foul places, from surface washing, or by seepage through the ground from neighboring accumulations of filth.

The attention of city and town authorities should be called to the dangers resulting from ponds of water along the gutters and sides of the streets of their municipalities, and the escape of water from drinking fountains and wells situated along the sides of streets. All these should be at once removed.

The rapid decomposition of vegetables, fruits and other articles of food during hot weather, and after they become tainted, wilted, soured or decayed, their irritating effects upon the stomach and bowels demand a rigid inspection of all articles of food offered for sale, and a condemnation of those found unwholesome.

There is NOW an *urgent* necessity for carrying out the above suggestions. Cholera may not reach us, but if you comply with the above, *other* maladies will be restricted and many lives saved. All householders should cheerfully aid and assist sanitary officers in their work, and the municipal authorities should liberally sustain their Local Boards of Health in this threatened emergency. Health officers should advise against any unnecessary alarm or excitement, and encourage people to be *regular* and *temperate* in their habits, and to rely on *care* and *cleanliness* for immunity from the disease. Allow no false reports of the presence of cholera pass uncontradicted; promptly correct such reports, and assure the public that epidemic cholera is an *exotic*; that it *never* occurs *spontaneously;* that it *must* be *carried* into a community; that modern sanitation *can* and *should* arrest the course of the malady; that an epidemic of cholera is a *punishment* for *neglected sanitary* precautions.

If any case *should* occur within your jurisdiction, act *promptly* and *vigorously*, with an assurance that by the exercise of sanitary skill and power you can master the invader, and please promptly notify this office, when pamphlets of instructions "How to Resist Cholera, and what to do in its Presence," will be immediately sent you.

County Health Officers will immediately issue the above order to all Local Boards of Health in their respective jurisdiction, and *insist* upon its enforcement.

The attention of your *newspapers* should be called to the order, and they be requested to give it publicity, and impress its importance with a note of warning to your people.

By order of the Board.

E. S. ELDER, M. D.,
Secretary and Executive Officer.

A special circular was issued to railroad officials and hotel keepers, urging them to be specially vigilant to guard against their properties being the avenues through which cholera might gain an entrance into the State. These circulars and orders were universally well received, and the suggestions acted upon, and the State was placed in a good sanitary condition. The disease has not yet reached American shores, but, unless the teachings of history are false, it will again cross the Atlantic to America. There is, therefore, great need of caution, and the Board respectfully submits the following suggestions, which are reproduced from the Second Annual Report:

This disease is justly denominated the greatest pestilential curse of both ancient and modern history. From the time of Hippocrates, 460, to 370 years before the Christian era, down to the present, an unbroken chain of accounts of its peculiar pathological manifestations, and of its fearful ravages, exists. Millions of human beings have fallen victims to it, and the very last cases observed in Egypt were none the less violent than those described by Hippocrates or Celsus. Its origin is unknown, but it *is* known that the disease is at home among filth and unhygienic surroundings in all climates and zones. Under the tropical suns and in the moist atmosphere of India, where the grossest hygienic faults exist, where superstition, mythology, idolatry, squalor, wretchedness, starvation and all other abominations prevail, cholera has domiciled itself for the last 2,000 years, and upon occasions of those vast pilgrimages which so often take place in that land, cholera numbers its victims by hundreds of thousands, and attaches its infective poison to the bodies and effects of those that are spared, and is carried along the highways of commerce and travel to all parts of the world. At any point where it may be carried, if favorable surroundings are found, it plants its germs, and new centers of infection rapidly propagate the poison, to be disseminated as widely as human intercourse extends. Since 1854 very much has been learned regarding this disease, and for the first time in history sanitarians feel confident of being able to restrict it, and under favorable conditions to stamp it out.

The following propositions embrace a synopsis of what is agreed upon among those observers who have had the greatest opportunities of acquiring a knowledge of the malady, and were approved and submitted to the United States Congress in the "Report of the Cholera Epidemic of 1883 in the United States," by a special committee, under the auspices of the United States Marine Hospital Service.

Proposition I.—"That Asiatic cholera is an infectious disease, resulting from an organic poison, which, gaining entrance into the alimentary canal, acts primarily upon and destroys the intestinal epithelium."

Proposition II.—"That the active agents in the distribution of the cholera poison are, the dejections of persons suffering from the disease in any of its stages; that, in these dejections there exists an organic matter, which, at a certain stage of decomposition is capable of reproducing the disease in the human organism to which it has gained acccess."

Proposition III.—"That cholera dejecta coming in contact with, and drying upon any object, such as articles of clothing, bedding and furniture, will retain indefinitely their power of infection. That in this manner a sure transmissibility of the cholera infection is effected, and that a distinct outbreak of the disease may occur by such means at great distances from the seat of original infection."

Proposition IV.—"That the specific poison which produces the disease known as cholera, originates alone in India, and that by virtue of its transmissibility through the persons of infected individuals, or in the meshes of infected fabrics, the disease is carried into all quarters of the world. That cholera has never yet appeared in the western hemisphere until after its route of pestilential march has been commenced in the eastern world, and that its epidemic appearance upon the North American continent has invariably been preceded by the arrival of vessels infected with cholera sick, or laden with emigrants and their property from infected districts."

Proposition V.—"That the respiratory and digestive organs are the avenues through which individual infection is accomplished; that through the atmosphere of infected localities, cholera is frequently communicated to individuals; that water may become contaminated with the specific poison of cholera from the atmosphere, from surface washings, from neglected sewers, cesspools or privies, and that the use of water so infected will induce an outbreak of the disease."

Proposition VI.—"That the virulence of a cholera demonstration, the contagion having been introduced into a community, is influenced by the hygienic condition of the population, and not by any geological formation upon which they may reside."

Proposition VII.—"That one attack of cholera imparts to the individual no immunity to the disease in the future, but that the contrary seems to be established."

Granting the correctness of these *Propositions*, the truth of which is unquestioned, it is at once evident that to insure against the terrors of cholera, it is necessary to adopt measures to prevent its advent into our cities and towns. Or, should it unexpectedly secure an entrance, to adopt such measures as shall prevent its propagation and the spread of the infection. To accomplish the *first* a rigid quarantine against infected localities, and the exclusion of *persons* or *things*, which are the probable carriers of the germs of the disease, are imperatively demanded. This, when *effectually* done, is a reliable safeguard. But, in these days of so rapid and wide transit, in the absence of military authority and discipline, it is practically impossible to guarantee a community complete protection by this method. We are compelled, therefore, to look to the *second* method of protection. In this, as well as in all other miasmatic diseases, the first step in protective measures is to place the community and surroundings in as good a hygienic condition as is possible. The streets, alleys and vacant lots in and about the locality should be thoroughly drained, cleaned and disinfected. Cesspools, gutters, ponds of water, masses of decaying animal and vegetable matter, should at once be abolished, cleaned and disinfected. Running streams of water, sewers, drains and pipes should be cleaned, purified and constantly disinfected. The houses and surroundings should be rigidly inspected, and everything in the way of vaults, cess-pools and hog-pens; the backyards, kitchens, cellars, sinks, pipes, barn and barn-yards, should at once be thoroughly and persistently cleaned and disinfected, and *kept* so by frequent official inspection. *Filth, squalor, personal uncleanliness*, and all other abominations against hygiene, should be firmly repressed. Most especial attention should be paid to isolate the sick, and to the destruction of all the ejections from them. *These* contain the poison, and they should *never* be removed from the sick-room until *thoroughly disinfected.* Then they should be *buried* far enough away from the source of water supply to insure against contamination.

If physicians and sanitarians, also health officers, would only remember the following simple propositions and adhere to them rigidly in case of a visitation of cholera, the disease would be shorn of its terrors:

First. *That cholera is an* EXOTIC *disease;*
That it NEVER *occurs spontaneously;*
That it is a SPECIFIC *poison, occurring* OUTSIDE of the patient.

Second. That a patient afflicted with cholera is the *result* of *poisoning*, by the *introduction* of morbific matter, *through* the *air* passages or *digestive* apparatus.

Third. That *every cholera* patient is a LIVING *arsenal* of *cholera infection*, which is being rapidly *thrown* off in the *excretions of the body.*

Fourth. That *these* ejections are the *very* ESSENCE of *poison*, that if *these* poisonous *discharges* are PROMPTLY and THOROUGHLY *disinfected*, the *poison* is DESTROYED and *no* danger of the *spread* of the disease exists.

Fifth. That to throw the *undisinfected* contents of a vessel containing these discharges out upon the open ground, into a vault, or a gutter, a sewer or stream of water, is *criminal* negligence or carelessness, and as *exceedingly dangerous* as putting a spark of fire into a powder magazine. That soiled clothing or bedding is *full* of poison, and a source of great danger.

Sixth. That "*cleanliness* is next to godliness," and a *complete disinfection* an immutable safeguard against cholera.

These lessons once learned, their importance comprehended, their precepts obeyed by physicians and patients, cholera can be stamped out in any locality in a very few days.

The true remedy against cholera is preventive medicine, and during the presence of the disease in any country, "Eternal vigilance is the only price of safety."

In addition to the directions for disinfection and list of disinfectants, found elsewhere in this report, all of which apply to cholera as well as other zymotic diseases, it has been demonstrated that the mineral acids possess a very high degree of power in destroying cholera germs—sulphuric acid and its preparations standing first in the list.

With a generosity characteristic of the appreciation of scientific progress, which is yet unknown to America, the French and German governments donated a large amount of money to equip and sustain an expedition of investigation into the localities infected with this disease. Some of their most eminent scientists, headed by Koch and Pasteur, were at the seat of the disease for several weeks, making *post mortems* and endeavoring to obtain new facts regarding its pathology, ætiology, and progress. So far nothing new has been discovered. A bacillus has been observed, but all attempts to propagate the disease from it have proven negative. The true value of disinfection and isolation, however, has been again demonstrated.

DISEASES OF DOMESTIC ANIMALS.

Although the statutes of the State do not directly place the diseases of animals under the jurisdiction of the State Board of Health, the influences of such diseases upon the public health are so marked in their character that the Board has adopted the following rule in regard thereto:

"County, city and town health officers shall take cognizance of all violations of the revised statutes in reference to diseased animals, and whenever any such are found, at once cause a rigid enforcement of the laws, and they shall in all cases of infectious diseases in animals occurring within their jurisdiction, render prompt assistance in stamping out the malady."

A form of disease very much resembling, and reported by the newspapers as being pleuro-pneumonia, appeared in Lawrence county. The Secretary of the County Board was at once ordered by telegraph to investigate the nature of the malady and report to this office. Likewise the Commissioner of Agriculture was requested to detail a veterinary officer to examine the cases. The disease proved to be a local malady, as did other cases which were reported as pleuro-pneumonia. Dr. Trambower, veterinary surgeon and United States live stock examiner, made an examination of all the cases, and in no instance did he find contagious pleuro-pneumonia. However, the latter disease is prevailing in all the adjoining States, and unless great care is exercised it will reach herds of Indiana cattle. The Board respectfully urges the necessity of placing the diseases of domestic animals under the immediate supervision of the State Board of Health, and of providing for the appointment by the Governor of a State Veterinary Surgeon, whose work shall be under the auspices of this Bureau.

Swine plague is prevailing in some parts of this State, and the owners of hogs generally have little or no conception of the cause, treatment or prevention of the malady. Medical science no doubt affords a partial relief from the excessive ravages of that disease, and competent authority should at least investigate the cases thoroughly.

In July last, word was received that a man in Boone county was suffering from glanders, contracted from a horse which was still alive, and the Secretary of this Board at once secured a veterinary surgeon and visited the locality, but found that the patient was already dead, having undoubtedly fallen a victim to that loathsome malady. The horse from which the disease had been contracted had died a few days before, but the original diseased animal was still alive, and when examined was found suffering from chronic glanders. The animal was at once killed and buried. Elsewhere in this report will be found Dr. Leach's report of this, the first case of human glanders ever reported in this State. The law should confer upon the State Board of Health the authority to destroy animals suffering from contagious diseases.

Another danger to the public health, as well as a serious question for the political economist, is the presence of Trichina Spinalis in American pork, and your Excellency is no doubt familiar with the action of the French and German governments, in regard to the importation of American pork, in consequence of its reported infection by this parasite. That American hogs are somewhat trichinous can not be denied, and cases of death from trichnosis have certainly occurred in this State, but not within the past year. The Board does not believe, however, that American hogs are so seriously affected with trichina, as to warrant this wholesale condemnation by foreign governments. The Board appreciates the fact that every possible precautionary measure should be adopted to afford protection against the parasite. Being without literature, or any information upon this subject, that will render the detection of the parasite possible to any save an expert in microscopy, and without a history of the disease in the living hog, the study of the disease has been very difficult indeed. In order to lay the foundation for an intelligent stuḍuy of the disease, as well as to demonstrate the injustice of indiscriminate condemnation of American hogs, the Board hasemployed an expert microscopist and careful student to make analyses of 1,000 hogs killed for export and to determine the per cent. of trichinous ones; to study the disease in its several aspects, and make a report thereon. The results of this analysis will be incorporated in the present report, and will be the first reliable data by which to judge Indiana hogs.

THIRD ANNUAL REPORT

OF THE

Bureau of Vital and Sanitary Statistics,

FOR THE

YEAR ENDING SEPTEMBER 30, 1884.

By E. S. ELDER, M. D.,
Superintendent and Secretary of the Board.

The collection of reliable vital and sanitary statistics is justly regarded as of great importance to the public, the sanitarian and the political economist. These statistics constitute the standard by which the public health is measured, and the basis of the science of sanitation, as well as the measure of financial waste, resulting from preventable loss of human life. In this practical age, assertion, conjecture, opinion, probability and theory, are all subordinate to facts and figures and the deductions therefrom. Hence, to convince the public of the value of sanitation, it must be presented with matured conclusions based upon mathematical exactness. In order to prepare reliable data, we endeavor to collect returns of marriages, births, deaths and dangerous diseases occurring in the State, and this work is necessarily attended with embarassments and difficulties which are very great; for the work having been but recently undertaken, it meets with that opposition which always attends the introduction of new measures, or the demands of sanitary requirements for the public good. The value of these returns is not appreciated by the single reporter, for it is only when they are aggregated that they become instructive, and the consequence is that they are frequently neglected. We feel, however, in presenting the following result of our labors in this direction, that we have cause for self-congratulation.

Our Bureau, for the third time only, has attempted a report, yet we have secured a fuller and more complete report than that of the last census, with all its perfect machinery under national supervision, and sustained regardless of cost. In the second annual report we furnished copies of the various blanks in use in this department, and the objections hitherto urged against them have been largely removed; still there exists a very imperfect conception of the value of these returns and the necessity of making them full and complete. The members of the medical profession measure their importance from a professional standpoint, and regard as of value only those portions of the reports that refer either directly or indirectly to the medical history of the case. The layman, judging from his standpoint, sees no value in this part of the reports, and very often fails to find the great legal value which attaches to those parts of the reports which, to the physician, are of secondary importance. The fact is, that these returns possess a dual value, a medico-legal value, and it is important that these reports should subserve both interests. It would be much better if the physician should report only the facts belonging to his department, and some other authority furnish the remaining facts, but at present this is impracticable, and we shall be compelled to adhere to our present system of securing the reports.

The medico-legal value attaches to the marriage, birth and death returns more exclusively. For instance, the birth returns provide in questions 1, 2, 3, 4, 5, 7, 13, 14, 15, 16, 17, 18 and 19 for the identification of the child. With these questions fully answered an official record is made which is ample to establish the just claims of the child to paternity, nationality, heirship, legitimacy, accountability, etc., etc.; and every one of the questions may become of the utmost value to such children, and the reports should always be carefully and completely made. Questions 2, 3, 4, 5, 6, 7, 12, 13, 14 and 15 relate to the mother, and at some time may prove of vital importance either to her hereditary or marital rights. Questions 2, 16, 17, 18 and 19 provide for the identification of the father of the child, and any of these in after years may become of importance either to the parents or their offspring. Questions 2, 8, 9, 10 and 11 interest only the sanitarian and physician, and 3½, 5, 7, 15, 18 and 19 interest the political economist.

In the marriage returns, questions 1, 2, 3, 4, 5, 6, 7, 9 and 18 refer to the personal and legal history of the groom and, when properly filled out, furnishes a complete record for all practical purposes. Questions 8, 10, 11, 12, 13, 14, 15, 16, 17 and 18 furnish a like record of the bride, which may be of great value in securing for her any just claims under the law. In this return, questions 3, 4, 5, 6, 12, 13 and 14 interest the sanitarian and physician only, while the ones interesting the political economist are 3, 4, 5, 6, 12, 13 and 14. The section of the law providing for marriage returns to the County Board of Health is indefinite, and it is impossible to compel any party to make a marriage return as designed by the State Board of Health law. In view of this difficulty the Board adopted the following rules with regard thereto:

"County health officers shall supply the clerk of their respective counties with marriage return blanks, and when said county clerk issues a marriage license, he shall deliver to the party procuring such license a blank marriage return, and when such return shall have been filled out and returned to the county clerk, he shall deliver it to the secretary of the County Board of Health."

"All persons authorized to solemnize matrimony in this State, shall fill out properly a return of each marriage solemnized by them and return the same with the license and certificate to the county clerk."

We would respectfully recommend that the General Assembly provide for the enforcement of these returns by statutory enactment.

In the death return, questions 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 14, 15, 16, 17, 18 and 19 relate to the personal history of the deceased, and are of value alone in a legal sense, which value may arise in the settlement of vexed questions in civil or criminal prosecutions, while questions 2, 3, 4, 6, 7, 8, 9, 11, 12, 13, and 14 have an important medical value as well as sanitary, the latter, however, being secondary throughout. The simple fact of ascertaining how many marriages, births and deaths have occurred throughout the State in the past year is of comparatively little importance. It is only when we compare the ages, nationality, color and occupation of those who are thus married and the influence of these things upon the health, offspring and community, that the statistics become valuable to the hygienist. This is likewise true of the births. It is comparatively of little importance how many children are born during the year, but it is of importance to the sanitarian to know what is the number of the child born to the mother; how many are born alive; how many are legitimate; the character of the labor; the cause of the difficult labor; the means of relief used and the parent's age. These things being understood in a large number of cases, deductions can be made which will enable us to devise methods of averting suffering and death.

So with the death returns. The mere fact of ascertaining the number dying within a given time is of little or no practical value, but the causes of this mortality, the proportions of these causes to the total, the undue amount of death from any one cause, the unnecessary waste of life from preventable causes, the method of averting this loss by the removal of the preventable causes, and the yearly comparisons of mortality, thus affording an index of the healthfulness of our State and comparison with the mortality of adjoining States; these are the questions which interest the sanitarian, the political economist and the tax-payers of the State. And as our State advances in age, wealth and population, these questions will become of more vital interest, for the value of human life and manual labor increases in proportion to the general progress of a nation, and real estate and personal property are consequently becoming of more importance. With the restless activity and energy characterizing American industry, families will become more and more scattered, and in the disposal of trusts, the inheritance of real estate, the settlement of vexed questions of identity, the records of the health office will become a constant necessity and of increasing value. We earnestly hope that health officers and physicians and persons solemnizing matrimony will appreciate these facts and make full and complete returns of marriages, births and deaths, carefully filling all the blanks.

The returns of dangerous diseases are of great importance to the physician, the sanitarian and the public at large. This return, when promptly made, will enable the health officer to guard against the extension of the diseases by instituting proper measures to arrest and stamp them out, and to compare the results of sanitation with the neglect of the same. These returns should be made a subject of special legislation by towns and cities; and in rural districts the State should require the reports as at present, except that in all instances the reports in all cities and towns should be required within twelve hours, and in the country within forty-eight hours.

Below we reproduce the rules of the State Board of Health upon this subject and earnestly recommend that they be incorporated into and made a part of the statutes:

"Whenever any householder within the jurisdiction of this Board shall know or suspect that any person within his family is sick with the small-pox, scarlet fever, diphtheria or any other disease dangerous to the public health, he shall immediately give notice thereof to the Board of Health, or the local health officer.

"Whenever any physician shall know or suspect that any person whom he is called to visit within the jurisdiction of this Board, is infected with the small-pox, scarlet fever, diphtheria or any other disease dangerous to the public health, such physician shall give notice thereof to the local Board of Health, together with the locality and full description of the case.

"Where these diseases occur within the corporate limits of cities and towns, such notice shall be given within twelve hours; outside the corporate limits of such cities and towns, all such diseases except small-pox, yellow fever and cholera shall be reported within fifteen days. All cases of small-pox, yellow fever and cholera shall be reported within twelve hours.

"No parent, guardian, tutor or other person within the jurisdiction of this Board having charge or control of any child or children, shall allow or permit any such child or children to go from any house or building infected with scarlet fever, diphtheria, cholera, small-pox, or other contagious or infectious diseases, to attend any public school, church or any place of amusement, or to travel in any street car or public vehicle.

"No person within the jurisdiction of this Board shall be allowed or permitted to go from any house or building infected with scarlet fever, diphtheria, cholera, small-pox, or other contagious or infectious diseases dangerous to public health to attend any public shool, church or any place of amusement, or to travel in any street car or public vehicle.

"No person recovering from infectious disease dangerous to public health shall be permitted to appear upon the public streets within the health limits of this Board, or public highway, or in any public place, until all danger from contagion by reason of such disease is passed.

"The room in which there has been a case of infectious disease dangerous to public health, must be thoroughly disinfected immediately, and all infected clothing, bedding, carpets, furniture, etc., either cleaned and disinfected or destroyed; all such work to be done under the supervision of the health officer.

"In all cases of death from any disease dangerous to public health, the body shall be placed in a coffin as soon as possible, and the coffin securely closed and never again opened."

TABULAR WORK.

Statistical tables Nos. 1 to 10 inclusive, present a resumé of the work of the Bureau in the collection of vital and sanitary statistics during the year. There is evidently an imperfect presentation of the total mortality for this period, resulting from the failure of physicians to make full reports of the deaths occurring within their respective jurisdictions. We have endeavored to secure fuller reports than heretofore, and believe that we have succeeded reasonably well in this matter. In States where these statistics have been required for several years, it is estimated that only about sixty per cent. of the deaths are reported. We believe our report will show a result more nearly correct than this. Until a burial permit is required in every case by law and permit based upon a return of death, we shall not be able to obtain a full and complete return of deaths. But while this failure is to be regretted, it does not materially detract from the value of mortality statistics, for, as elsewhere stated, the aggregate number of persons dying within a given time is not a matter of real importance. The causes of death and the proportion existing between them are, however, of vast importance: hence, if sixty per cent. only of the deaths are reported, and the neglect, which is a fair presumption, extends to all classes alike, the proportion between the causes remains unchanged. For the purpose of the sanitarian the returns are as valuable as though full and complete, but for legal purposes they are certainly imperfect. Under these circumstances the recommendation naturally follows the opinion that burial permits, based on death returns, should be required for all persons dying within the sanitary jurisdiction of all cities and towns and, eventually, for all dying within the State. In our classifications we have adhered to our nosological table of last year.

Below we submit comparative statements of mortality in the State since the establishment of the State Board of Health:

CLASSES.	1882. 9 Mos.	Per Cent. to Total Mortality.	1883.	Per Cent. to Total Mortality.	1884.	Per cent. to Total Mortality.
Zymotic	3,200	28.91	3,835	25.5	3,950	26.97
Constitutional	1,717	15.51	2,540	17.1	2,934	20.04
Local	3,926	35.48	5,324	35.8	5,485	37.46
Developmental	1,639	14.82	1,970	13.2	1,160	7.92
Violence	522	4.70	740	4.9	794	5.42
Unclassified	63	.57	516	3.5	318	2.17
Totals	11,067	99.98	14,925	100.	14,641	100.

It is gratifying to note the gradual decrease in the proportion of deaths from zymotic diseases. This great class is the one to which we direct special efforts to curtail the loss of life. We believe that, with well directed and well sustained efforts, the proportion of deaths from this class can be reduced to less than 20 per cent. of the annual mortality. During the year the Board of Health issued new rules and recommendations concerning these diseases, as follows:

Whenever any householder within the jurisdiction of this Board shall know or suspect that any person within his family is sick with small-pox, scarlet fever, diphtheria, or any other disease dangerous to the public health, he shall immediately give notice thereof to the Board of Health, or the local health officer.

Whenever any physician shall know or suspect that any person whom he is called to visit within the jurisdiction of this Board, is infected with the small-pox, scarlet fever, diphtheria or any other disease dangerous to the public health, such physician shall give notice thereof to the local Board of Health, together with the locality and full description of the case.

Where these diseases occur within the corporate limits of cities and towns, such notice shall be given within twelve hours; outside the corporate limits of such cities and towns, all such diseases except small-pox, yellow fever and cholera, shall be reported within fifteen days. All cases of small-pox, yellow fever and cholera shall be reported within twelve hours.

No parent, guardian, tutor or other person within the jurisdiction of this Board having charge or control of any child or children, shall allow or permit any such child or children to go from any house or building infected with scarlet fever, diphtheria, cholera, small-pox or other contagious or infectious diseases, to attend any public school, church, or any place of amusement, or to travel in any street car or public vehicle.

No person within the jurisdiction of this Board shall be allowed or permitted to go from any house or building infected with scarlet fever, diphtheria, cholera, small-pox or other contagious or infectious diseases dangerous to public health to attend any public school, church, or any place of amusement, or to travel in any street car or public vehicle.

No person recovering from infectious disease dangerous to public health shall be permitted to appear upon the public streets within the health limits of this Board, or public highway, or in any public place, until all danger from contagion by reason of such disease is passed.

The room in which there has been a case of infectious disease dangerous to public health, must be thoroughly disinfected immediately, and all infected clothing, bedding, carpets, furniture, etc., either cleaned and disinfected or destroyed; all such work to be done under the supervision of the health officer.

In all cases of death from any disease dangerous to public health, the body shall be placed in a coffin as soon as possible, and the coffin securely closed and never again opened.

In short, our weapons against this class of maladies are public and private cleanliness, pure air, good water, comfortable clothing and habitations, isolation, disinfection and vaccination. We again incorporate into our report the Preventable Disease circular, of which 12,000 copies were distributed last year, in localities where infectious diseases prevailed, and which we are satisfied proved of much utility.

TABLE NO. I.

CLASS ONE—ZYMOTIC DISEASES.

Showing total number of Deaths occurring in the State of Indiana, arranged by Classes, Orders, Months, Sex and Color, for the year ending September 30, 1884.

CLASS ONE—ZYMOTIC DISEASES.	October.	November.	December.	January.	February.	March.	April.	May.	June.	July.	August.	September.	Male.	Female.	White.	Colored.	Grand Total.
ORDER ONE—MIASMATIC—																	
Anthrax	1	...	...	...	...	...	1	1	...	1	...	1	3	2	5	...	5
Choleraic diarrhœa	...	...	...	1	...	...	...	...	1	2	...	...	1	3	4	...	4
Cholera infantum	46	5	...	1	1	...	...	...	27	153	220	198	358	293	633	18	651
Cholera morbus	...	1	...	...	...	...	1	...	1	14	26	7	36	14	48	2	50
Congestive chill	5	...	3	3	3	4	1	2	2	7	5	8	20	23	42	1	43
Croup	19	19	33	25	14	17	14	13	5	10	12	4	105	80	182	3	185
Diarrhœa	5	6	5	7	6	7	1	...	1	27	17	20	59	43	101	1	102
Diaerhœa, chronic	1	...	1	...	...	...	6	2	7	1	4	2	12	12	23	1	24
Diphtheria	36	56	24	23	21	10	12	7	6	9	13	22	101	138	239	...	239
Dysentery	21	7	...	4	3	4	1	...	1	38	61	54	99	95	192	2	194
Dysentery, chronic	4	1	2	...	...	...	1	2	7	...	...	1	7	11	18	...	18
Entero-colitis	14	2	2	2	1	2	2	...	2	9	11	19	33	33	65	1	66
Erysipelas	10	6	6	8	3	8	3	4	5	8	7	7	37	38	74	1	75
Fever, catarrhal	2	1	1	7	5	6	1	5	1	2	...	...	15	16	31	...	31
Fever, cerebro spinal	9	9	7	11	17	21	16	10	14	16	10	7	65	82	143	4	147
Fever, congestive	2	1	...	3	4	1	3	...	1	2	4	3	11	13	23	1	24
Fever, continued	...	1	1	1	...	...	1	...	...	...	1	...	3	2	5	...	5
Fever, intermittent	...	...	...	2	...	1	...	1	1	2	1	...	3	5	8	...	8
Fever, malarial	19	8	7	11	9	10	11	2	4	9	18	31	56	83	130	9	139
Fever, pernicious	2	...	3	7	4	3	1	...	...	2	2	6	15	15	28	2	30
Fever, puerperal	5	3	7	4	4	7	13	8	5	5	3	5	...	69	67	2	69
Fever, remittent	8	...	2	...	2	2	2	2	3	6	3	12	16	26	40	2	42
Fever, scarlet	14	11	18	26	20	14	14	13	12	18	4	14	93	85	177	1	178
Fever, typhoid	103	69	39	46	29	39	29	26	15	40	62	99	316	280	576	20	596
Fever, typho-malarial	18	16	6	13	11	9	5	9	9	12	18	31	74	83	152	5	157
Flux	...	...	...	...	...	...	...	...	...	3	4	3	6	4	10	...	10
Gangrene	4	2	2	2	5	4	1	3	3	4	2	1	16	17	33	...	33

Measles	3	...	1	4	7	18	34	22	8	12	8	7	58	66	111	13	124
Milk sickness	...	...	...	...	1	...	...	...	...	1	1	1	3	1	4	...	4
Parotitis	...	...	...	...	...	...	...	...	...	...	...	1	...	1	1	...	1
Pertussis	9	8	6	9	8	12	17	18	13	20	18	14	60	92	143	9	152
Puerperal metretes	...	...	...	...	...	...	1	...	...	...	...	...	..	1	1	...	1
Puerperal peritonitis	2	3	2	...	2	2	4	...	...	4	3	3	...	25	24	1	25
Puerperal septæmia	1	1	2	2	6	6	1	1	2	2	3	1	...	28	27	1	28
Pyæmia	1	1	...	3	3	4	1	1	...	5	1	1	12	9	21	...	21
Rotheln	...	...	...	...	1	...	...	...	...	...	...	...	1	...	1	...	1
Septæmia	10	6	3	2	9	5	4	8	2	6	6	4	24	41	62	3	65
Smallpox	3	3	5	11	22	31	5	9	5	2	1	3	59	41	80	20	100
Urticaria	...	...	1	...	...	...	...	...	...	...	...	...	...	1	1	...	1
Worms	...	...	...		...	...	...	...	...	1	...	...	1	...	1	...	1
Total	377	246	189	238	221	247	207	169	163	453	549	590	1,777	1,872	3,526	123	3,649
ORDER TWO—ENTHETIC—																	
Equina	...	...	...	...	...	...	...	...	...	1	...	...	1	...	1	...	1
Syphilis, acquired	1	...	...	3	1	1	...	1	...	2	4	...	11	2	11	2	13
Syphilis, constitutional	...	1	...	1	3	...	2	2	2	1	...	3	4	11	11	4	15
Total	1	1	...	4	4	1	2	3	2	4	4	3	16	13	23	6	29
ORDER THREE—DIETIC—																	
Deleirum tremens	...	...	...	1	...	1	1	2	...	...	2	1	8	...	8	...	8
Inanition	21	16	10	27	16	25	11	6	15	27	31	27	130	102	219	13	232
Intemperance	1	...	2	3	3	1	1	2	1	2	1	1	11	7	18	...	18
Purpura	...	...	...	2	...	...	...	...	...	1	...	...	3	...	3	...	3
Purpura, hemorrhagica	...	...	...	...	...	...	...	...	...	...	...	1	1	...	1	...	1
Total	22	16	12	33	19	27	13	10	16	30	34	30	153	109	249	13	262
ORDER FOUR—PARASITIC—																	
Aptha	...	...	...	...	...	...	...	...	...	...	2	1	3	...	3	...	3
Eczema	...	...	...	...	...	1	1	...	1	...	...	1	2	2	4	...	4
Elephantiasis	...	...	...	...	...	...	...	...	...	...	1	...	...	1	1	...	1
Thrush	...	...	...	...	2	...	...	...	...	...	...	...	2	...	2	...	2
Total	...	...	...	...	2	1	1	...	1	...	3	2	7	3	10	...	10
Miasmatic	377	246	189	238	221	247	207	169	163	453	549	590	1,777	1,872	3,526	123	3,649
Enthetic	1	1	...	4	4	1	2	3	2	4	4	3	16	13	23	6	29
Dietic	22	16	12	33	19	27	13	10	16	30	34	30	153	109	249	13	262
Parasetic	...	...	...	...	2	1	1	...	1	...	3	2	7	3	10	...	10
Total zymotic	400	263	201	275	246	276	223	182	182	487	590	625	1,953	1,997	3,808	142	3,950

TABLE NO. I—Continued.

CLASS TWO—CONSTITUTIONAL DISEASES.

Showing total number of Deaths occurring in the State of Indiana, arranged by Classes, Orders, Months, Sex and Color, for the year ending September 30, 1884.

CLASS TWO—CONSTITUTIONAL DISEASES.	October.	November.	December.	January.	February.	March.	April.	May.	June.	July.	August.	September.	Male.	Female.	White.	Colored.	Total.
ORDER ONE—DIATHETIC.																	
Anæmia	2	...	3	3	4	...	3	3	4	5	2	1	9	21	30	...	30
Anasarca	2	3	...	3	2	1	...	1	...	2	3	3	12	8	18	2	20
Ascites	2	2	2	...	...	...	1	2	...	1	2	3	7	8	15	...	15
Cancer	14	8	6	14	4	9	7	12	3	6	5	8	44	52	95	1	96
Cancer, abdomen	...	...	...	...	...	...	...	...	...	...	1	...	1	...	1	...	1
Cancer, bowels	1	1	...	1	...	1	...	...	...	...	...	...	2	2	4	...	4
Cancer, breast	...	...	1	5	1	...	3	2	2	2	2	6	2	22	21	3	24
Cancer, epithelial	...	...	...	...	...	...	...	...	...	...	...	1	...	1	1	...	1
Cancer, eye	...	...	...	...	...	...	...	1	...	...	...	1	1	1	2	...	2
Cancer, face	1	1	...	1	...	1	...	...	...	...	...	...	3	1	3	1	4
Cancer, fibroid	...	...	...	...	...	...	...	...	...	...	...	1	1	...	1	...	1
Cancer, heart	...	...	...	...	...	1	...	...	...	...	1	...	1	1	2	...	2
Cancer, larynx	...	...	...	1	...	...	...	...	...	...	...	...	1	...	1	...	1
Cancer, liver	2	1	3	...	2	1	...	1	...	4	1	3	9	9	17	1	18
Cancer, mesentric glands	...	...	...	...	...	...	...	...	...	...	...	1	...	1	1	...	1
Cancer, neck	...	...	...	...	...	...	...	...	...	2	...	...	1	1	2	...	2
Cancer, œsophagus	...	...	...	...	...	...	...	...	...	...	1	...	...	1	1	...	1
Cancer, rectum	1	...	1	1	2	...	...	...	1	...	2	1	3	6	9	...	9
Cancer, stomach	7	6	5	4	2	4	14	6	8	13	2	1	45	27	72	...	72

Cancer, uterus	6	3	2	2	3	2	2	4	1	4	3	2	...	34	33	1	34
Chlorosis	...	...	...	2	1	...	...	...	1	1	...	...	...	5	5	...	5
Dropsy	15	17	6	21	11	14	11	8	6	12	14	16	77	74	134	17	151
Goitrer exopthalmic	...	...	...	...	...	...	...	...	2	...	...	...	...	2	2	...	2
Gout	...	...	...	...	...	1	...	...	...	...	1	...	1	1	2	...	2
Heart, rheumatism of	...	...	...	1	1	1	...	3	2	2	1	2	8	5	12	1	13
Leucocythaemia	2	...	1	1	...	1	2	2	3	1	1	...	3	11	13	1	14
Lupsus	...	...	...	...	...	...	...	...	...	1	1	...	1	1	2	...	2
Lymphadenoma	...	...	...	...	1	1	1	...	1	...	...	...	2	2	4	...	4
Melanosis	...	...	...	...	...	...	...	...	...	1	...	...	...	1	1	...	1
Mesenteric glands, disease of	...	...	...	...	...	...	1	...	...	...	...	...	...	1	1	...	1
Pancreas, disease of	...	...	...	...	...	...	...	...	...	...	1	...	...	1	1	...	1
Rheumatism	3	6	5	7	6	4	5	2	4	3	2	3	30	20	49	1	50
Rheumatism, inflammatory	...	...	...	...	...	...	...	...	3	...	...	...	...	3	3	...	3
Total	58	48	35	67	40	42	50	47	41	60	46	53	264	323	558	29	587
ORDER TWO—TUBERCULAR.																	
Abscess, psoas	...	...	...	1	...	1	...	...	...	...	...	...	2	...	2	...	2
Hydrocephalus	6	4	1	6	2	2	7	8	2	2	5	1	26	20	46	...	46
Laryngetis, tubercular	...	...	...	...	...	1	1	...	...	...	...	...	2	...	2	...	2
Meningitis, tubercular	1	4	3	6	5	14	14	10	7	6	12	4	37	49	83	3	86
Morbus coxarius	2	2	...	...	...	...	1	...	...	1	2	...	3	5	8	...	8
Phthisis pulmonalis	158	140	122	216	174	240	225	178	144	206	175	154	875	1,257	1,982	150	2,132
Potts' disease	...	...	...	...	1	...	...	...	1	...	...	...	1	1	1	1	2
Rachitis	...	...	...	...	3	...	...	...	...	...	...	...	...	3	3	...	3
Scrofula	3	6	1	2	1	7	2	4	4	3	8	5	26	20	41	5	46
Tabe's dorsalis	1	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	1
Tabe's mesenterica	3	...	2	2	2	1	...	1	1	1	2	4	8	11	15	4	19
Total	174	156	129	233	188	266	250	201	159	219	204	168	980	1,367	2,184	163	2,347
Diathetic	58	48	35	67	40	42	50	47	41	60	46	53	264	323	558	29	587
Tubercular	174	156	129	233	188	266	250	201	159	219	204	168	980	1,367	2,184	163	2,347
Total Constitutional Diseases	232	204	164	300	228	308	300	248	200	279	250	221	1,244	1,690	2,742	192	2,934

TABLE NO. 1—Continued.

CLASS THREE—LOCAL DISEASES.

Showing total number of Deaths occurring in the State of Indiana, arranged by Classes, Orders, Months, Sex and Color, for the year ending September 30, 1884.

CLASS THREE—LOCAL DISEASES.	October.	November.	December.	January.	February.	March.	April.	May.	June.	July.	August.	September.	Male.	Female.	White.	Colored.	Grand Total.
ORDER ONE—NERVOUS SYSTEM.																	
Apoplexy	8	12	11	19	18	22	13	12	9	13	18	13	95	73	167	1	168
Brain, abscess of	1	...	...	...	...	1	...	...	1	...	1	...	1	3	4	...	4
Brain, anæmia of	...	1	...	...	...	...	...	...	...	2	...	1	2	2	4	...	4
Brain, compression of	...	...	...	1	...	...	...	...	...	...	...	...	...	1	1	...	1
Brain, congestion of	18	7	12	18	17	15	10	17	14	27	22	18	93	102	184	11	195
Brain, disease of	...	1	1	3	2	1	1	1	1	4	4	1	8	12	20	...	20
Brain, effusion of	1	...	...	...	...	1	1	1	...	...	...	...	2	2	4	...	4
Brain, fever of	1	1	2	3	3	2	1	5	1	2	3	1	15	10	25	...	25
Brain, hemorrhage of	4	4	1	1	1	1	1	3	4	3	...	2	12	13	23	2	25
Brain, hyperæmia of	...	...	...	...	1	...	...	...	...	...	...	...	1	...	1	...	1
Brain, inflammation of	12	8	...	2	8	4	4	5	2	6	10	11	40	32	71	1	72
Brain, paralysis of	...	...	...	...	1	...	...	...	...	...	1	2	3	1	4	...	4
Brain, sclerosis of	...	...	...	...	...	...	1	...	...	...	...	...	...	1	1	...	1
Brain, softening of	4	2	3	7	8	5	7	5	7	7	6	7	40	28	66	2	68
Brain, tumor of	1	...	...	...	...	...	...	...	1	...	...	...	2	...	2	...	2
Cerebritis	7	3	3	3	4	8	5	5	5	14	9	10	42	34	73	3	76
Chorea	...	...	...	1	...	...	...	...	...	...	...	...	...	1	1	...	1
Convulsions	...	...	...	...	1	1	...	1	1	...	...	...	1	3	4	...	4
Convulsions, infantile	14	22	13	17	28	32	17	22	15	33	26	31	150	120	250	20	270
Epilepsy	5	2	5	4	3	1	5	6	4	3	2	4	19	25	41	3	44
Inflammation	...	2	...	...	...	...	...	...	1	...	...	...	2	1	3	...	3
Insanity	1	1	2	2	3	4	4	1	1	2	3	5	15	14	27	2	29
Locomotor ataxia	...	...	...	...	...	3	...	1	...	...	1	1	5	1	6	...	6
Mania, hysteria	...	...	...	...	...	...	...	...	...	1	...	...	...	1	1	...	1
Meningitis	24	17	19	19	21	19	28	21	28	29	30	23	131	147	268	10	278

Meningitis, cerebral	1	4	2	1	5	2	4	5	3	5	4	8	23	21	43	1	44
Meningitis, spinal	...	...	1	...	...	...	3	1	1	4	1	7	13	5	16	2	18
Muscular atrophy	...	...	...	...	...	...	1	...	...	...	...	...	1	...	1	...	1
Myelitis	1	...	...	...	1	2	1	...	1	...	...	2	4	4	8	...	8
Neuralgia	...	...	...	...	1	...	...	...	1	...	...	2	...	4	4	...	4
Neurasthemia	2	1	4	1	...	1	...	...	...	2	...	...	5	6	11	...	11
Paralysis	24	18	15	32	26	26	22	11	18	26	28	23	150	119	265	4	269
Spine, congestion of	2	1	1	...	...	...	...	...	...	...	...	...	2	2	4	...	4
Spine, curvature of	...	...	...	...	...	...	...	...	...	1	...	...	...	1	1	...	1
Spine, disease of	...	...	...	4	...	2	...	3	1	5	1	...	11	5	13	3	16
Spinal cord, sclerosis of	...	...	1	...	...	...	1	...	...	1	...	...	1	2	3	...	3
Tetanus	...	1	2	2	1	1	1	3	3	3	3	1	16	5	20	1	21
Thrombosis, cerebral	...	...	...	1	...	2	...	...	...	...	...	...	2	1	2	1	3
Trismus nascentium	...	...	2	1	...	1	...	1	3	1	3	2	9	5	14	...	14
Total	131	108	100	142	153	157	131	130	126	194	176	175	916	807	1,656	67	1,723
ORDER TWO—CIRCULATORY.																	
Aneurism	...	...	1	...	1	1	1	...	1	1	1	...	3	4	7	...	7
Angina pectoris	1	...	1	1	4	4	4	2	1	2	1	2	10	13	22	1	23
Aorta, aneurism of	...	...	...	...	...	...	...	...	...	1	...	...	...	1	1	...	1
Aorta, rupture of	...	...	...	...	...	...	...	...	...	...	...	1	...	1	1	...	1
Aorta, stenosis of	...	...	...	...	...	...	...	...	1	...	...	1	2	...	2	...	2
Arteritis	...	...	...	...	...	...	1	...	...	...	...	...	1	...	1	...	1
Congestion	3	2	3	8	4	4	1	2	3	2	3	4	17	22	38	1	39
Dyspnea	...	...	...	...	...	...	...	...	...	...	...	1	...	1	1	...	1
Embolism	...	1	1	...	...	...	...	...	2	3	1	1	3	6	8	1	9
Endocarditis	2	...	1	3	2	3	1	2	1	...	...	...	10	5	15	...	15
Heart, atrophy of	...	...	1	...	...	...	...	...	...	1	...	...	2	...	2	...	2
Heart clot	2	2	...	2	...	...	1	...	...	1	...	...	5	3	8	...	8
Heart, dilitation of	...	...	1	3	...	...	...	1	2	...	...	1	4	4	8	...	8
Heart, disease of	24	16	19	27	18	19	25	13	19	30	35	27	130	142	262	10	272
Heart, fatty of	1	...	2	2	1	...	2	...	5	3	1	...	8	9	17	...	17
Heart, hypertrophy of	1	1	3	1	1	4	2	2	2	2	1	1	11	10	21	...	21
Heart, neuralgia of	1	1	1	1	1	1	1	...	1	...	1	...	5	4	9	...	9
Heart, paralysis of	2	3	1	4	1	1	4	2	3	2	4	2	19	10	28	1	29
Heart, valvular disease of	9	6	8	8	16	7	9	9	5	5	8	8	56	42	87	11	98
Hemorrhage	1	3	3	3	4	3	...	...	1	3	3	2	15	11	24	2	26
Hydropericardium	2	...	2	1	2	...	1	3	5	5	...	...	9	12	21	...	21
Pericarditis	2	...	2	3	2	1	2	...	1	2	2	1	12	6	17	1	18
Phlebitis	...	...	1	...	1	...	1	...	...	...	1	...	2	2	4	...	4
Total	51	35	51	67	58	48	56	36	53	63	62	52	324	308	604	28	632
ORDER THREE—RESPIRATORY.																	
Apnea	...	...	...	...	...	...	1	...	1	...	...	...	1	1	2	...	2
Asthma	6	1	4	2	4	6	5	4	5	1	2	1	23	18	41	...	41
Bronchitis	16	14	21	41	32	54	20	12	16	19	10	10	149	116	250	15	265

TABLE NO. 1—Class Three—Local Diseases—Continued.

CLASS THREE—LOCAL DISEASES.	October.	November.	December.	January.	February.	March.	April.	May.	June.	July.	August.	September.	Male.	Female.	White.	Colored.	Grand Total.
Order Three—Respiratory—Continued.																	
Bronchitis, capillary	1	. . .	2	. . .	. . .	. . .	6	7	6	5	1	. . .	12	16	28	. . .	28
Catarrh, capillary	1	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	1	2	1	3	2	5	. . .	5
Catarrh, intestinal	. . .	. . .	. . .	1	2	1	. . .	. . .	. . .	. . .	. . .	. . .	2	2	4	. . .	4
Embolism, pul	. . .	. . .	. . .	. . .	. . .	. . .	. . .	1	. . .	. . .	. . .	. . .	. . .	1	1	. . .	1
Emphysema	. . .	. . .	. . .	. . .	. . .	. . .	. . .	1	1	. . .	. . .	1	3	. . .	3	. . .	3
Empyema	. . .	1	1	. . .	1	1	. . .	. . .	1	. . .	. . .	1	4	2	6	. . .	6
Epistaxis	1	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	1	1	. . .	1
Glottis, œdema of	. . .	. . .	. . .	1	. . .	. . .	. . .	. . .	. . .	2	. . .	. . .	2	1	3	. . .	3
Hæmoptysis	2	1	3	1	. . .	1	2	2	2	4	3	3	13	11	21	3	24
Hydrothorax	. . .	1	. . .	. . .	1	. . .	1	. . .	2	3	1	. . .	4	5	9	. . .	9
Influenza	1	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	1	. . .	1	. . .	1
Laryngitis	6	7	3	. . .	3	1	1	. . .	2	. . .	1	2	13	13	25	1	26
Lungs, abscess of	3	. . .	1	1	. . .	. . .	2	1	2	4	. . .	1	6	9	14	1	15
Lungs, congestion of	13	6	13	11	10	7	6	11	6	6	4	5	47	51	95	3	98
Lungs, disease of	1	2	1	. . .	1	1	. . .	. . .	1	. . .	1	. . .	3	5	8	. . .	8
Lungs, œdema of	. . .	. . .	. . .	. . .	. . .	1	1	. . .	4	. . .	. . .	. . .	2	4	6	. . .	6
Pleurisy	1	. . .	. . .	4	. . .	3	. . .	2	2	. . .	. . .	1	9	4	12	1	13
Pneumonitis	37	59	72	137	181	167	140	78	35	30	36	44	549	467	970	46	1,016
Pneumonitis-broncho	1	1	. . .	1	. . .	. . .	1	1	1	1	1	. . .	4	4	7	1	8
Pneumonitis-catarrhal	. . .	. . .	. . .	. . .	1	. . .	1	1	. . .	. . .	. . .	. . .	2	1	3	. . .	3
Pneumonitis-pleuro	. . .	2	2	5	6	1	4	6	3	1	2	1	21	12	42	1	33
Pneumenitis-typho	3	4	14	10	7	9	14	5	2	3	5	. . .	43	33	73	3	76
Throat, ulceration of	. . .	. . .	. . .	. . .	1	1	. . .	. . .	. . .	. . .	. . .	. . .	2	1	2	. . .	2
Thoracic tumor	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	1	. . .	1	1	. . .	1
Total	93	99	137	215	250	254	205	132	92	80	69	72	917	781	1,623	75	1,698
Order Four—Digestive.																	
Abdomen, tumor of	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	1	1	. . .	2	2	. . .	2
Bile duct, occlusion of	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	1	1	. . .	1	. . .	1
Bowels, congestion of	5	. . .	1	4	3	6	1	3	2	6	3	3	20	17	37	. . .	37
Bowels, hemorrhage of	1	. . .	2	4	. . .	3	1	. . .	. . .	1	. . .	2	8	6	14	. . .	14
Bowels, obstruction of	5	2	. . .	2	2	2	1	1	4	4	8	5	21	15	36	. . .	36
Bowels, occlusion of	1	. . .	. . .	1	. . .	1	. . .	. . .	. . .	. . .	. . .	. . .	1	2	3	. . .	3
Bowels, rupture of	. . .	. . .	. . .	. . .	. . .	. . .	1	. . .	. . .	. . .	. . .	. . .	. . .	1	1	. . .	1

Bowels, tuberculosis	...	...	...	...	...	...	...	...	...	...	...	2	...	2	1	1	2
Bowels, tumor of	...	...	...	1	...	...	...	...	...	...	...	...	...	1	1	...	1
Bowels, ulceration of	2	1	...	1	1	1	1	...	...	2	...	1	5	5	9	1	10
Cancrum Oris	...	...	...	...	...	...	...	...	...	...	1	...	1	...	1	...	1
Catarrh enteric	...	...	...	...	...	...	...	...	...	1	...	...	...	1	1	...	1
Colic	...	...	...	1	...	1	1	...	...	...	...	2	1	4	5	...	5
Colitis	1	...	...	1	...	1	1	...	...	1	1	4	6	4	10	...	10
Dyspepsia	3	...	...	...	2	2	2	3	9	4	2	3	17	13	29	1	30
Enteritis	23	20	9	10	11	12	11	8	6	27	30	41	100	108	200	8	208
Gastritis	8	6	8	10	8	6	9	9	13	17	14	15	56	67	121	2	123
Gastro-enteritis	5	...	4	2	1	...	3	4	1	2	12	6	23	17	40	...	40
Glossitis	...	...	...	...	...	...	...	...	...	...	1	...	...	1	1	...	1
Hematamesis	...	...	...	...	...	...	...	...	...	...	1	...	1	...	1	...	1
Hepatatis	2	1	...	4	3	3	2	3	4	7	2	4	24	11	33	2	35
Hernia	1	...	1	1	...	...	...	2	...	1	...	1	5	2	7	...	7
Hernia, strangulated	2	2	...	1	2	1	...	1	3	1	5	...	10	8	17	1	18
Intestines, perforation of	...	...	...	...	...	...	...	...	...	...	...	1	1	...	1	...	1
Intussusception	4	...	2	...	...	1	4	2	2	1	5	1	14	8	22	...	22
Jaundice	3	2	5	3	3	2	...	2	...	4	3	1	13	15	28	...	28
Liver, abscess of	...	...	...	4	1	1	...	2	3	3	1	2	6	11	16	1	17
Liver, atrophy of	...	...	...	...	1	...	...	...	1	1	1	...	2	2	4	...	4
Liver, cirrhosis of	3	6	3	1	2	3	4	2	7	2	1	4	28	10	36	2	38
Liver, congestion of	...	...	...	1	1	...	1	1	...	...	1	...	3	2	5	...	5
Liver, disease of	...	1	1	1	1	1	...	...	...	...	1	1	4	3	7	...	7
Liver, enlargement of	...	1	...	...	...	...	1	...	...	...	...	...	1	1	2	...	2
Liver, fatty of	...	...	1	...	...	...	...	...	...	...	...	...	...	1	1	...	1
Liver, sclerosis of	...	...	...	...	...	...	...	...	...	...	1	2	2	1	3	...	3
Œsophagus, contraction of	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...
Peritonitis	8	6	10	10	13	12	8	5	6	11	13	14	43	73	114	2	116
Rectum, malig. stricture of	...	...	...	...	...	...	...	1	...	...	...	...	1	...	1	...	1
Rectum, occlusion of	...	...	...	...	...	1	...	...	...	...	...	...	1	...	1	...	1
Rectum, ulcer of	...	...	...	...	...	...	...	...	...	1	...	1	2	...	2	...	2
Splenitis	...	1	1	1	1	1	...	2	...	...	...	...	1	6	7	...	7
Stomach, abscess of	...	...	...	...	1	...	...	...	...	...	...	...	1	...	1	...	1
Stomach, catarrh of	...	...	...	...	...	...	...	...	...	...	1	1	1	1	2	...	2
Stomach, congestion of	7	3	4	5	10	...	...	...	3	4	3	8	23	24	46	1	47
Stomach, disease of	2	2	...	1	2	...	...	1	...	...	...	...	5	3	8	...	8
Stomach, hemorrhage of	1	...	1	...	...	2	...	...	...	...	...	...	3	1	4	...	4
Stomach, neuralgia of	1	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	1
Stomach, ulceration of	1	1	5	2	1	...	1	2	1	3	3	3	14	9	23	...	23
Stomatitis	1	...	...	...	...	...	...	1	...	2	1	1	1	5	6	...	6
Stomatitis, mecurial	...	...	...	...	...	...	...	...	...	...	...	1	...	1	1	...	1
Throat, abscess of	...	...	...	...	...	...	1	...	1	...	...	...	2	...	2	...	2
Throat, disease of	...	...	...	...	...	...	...	...	1	...	...	...	...	1	1	...	1
Tonsilitis	4	2	1	1	2	3	1	1	...	...	...	3	12	6	18	...	18
Tumor, parotid	...	...	...	...	...	...	...	...	...	1	...	...	1	...	1	...	1
Tympanitis	...	...	...	...	...	...	...	1	...	...	...	...	1	...	1	...	1
Typhlitis	...	...	...	...	...	...	2	1	2	1	...	...	2	4	6	...	6
Total	94	57	59	73	73	66	58	58	69	108	116	135	489	477	944	22	966

TABLE No. 1—CLASS THREE—LOCAL DISEASES—Continued.

CLASS THREE—LOCAL DISEASES.	October.	November.	December.	January.	February.	March.	April.	May.	June.	July.	August.	September.	Male.	Female.	White.	Colored.	Total.
ORDER FIVE—URINARY.																	
Albuminurea	...	2	..	3	2	2	2	...	...	1	1	...	7	6	13	...	13
Bladder, atrophy of.	...	...	...	1	...	...	...	...	...	...	...	...	1	...	1	...	1
Bladder, disease of	1	1	...	...	...	...	...	...	1	...	...	...	2	1	3	...	3
Bladder, paralysis of	1	...	...	...	...	...	...	...	...	...	...	...	1	...	1	...	1
Calculi-Biliary	...	...	1	...	...	...	...	...	...	...	...	...	...	1	1	...	1
Calculus.	1	...	1	2	...	...	...	...	...	...	1	...	4	1	1	...	1
Cystitis	3	3	3	2	5	7	5	1	3	8	10	3	46	7	7	...	7
Diabetes.	3	2	2	5	3	5	3	3	...	5	6	8	32	13	44	1	45
Gallduct, stenosis.	...	...	...	...	...	...	...	...	...	1	...	...	1	...	1	...	1
Hoermaturia	...	...	...	...	...	...	...	...	1	...	...	...	1	...	2	...	2
Hodgkin's disease	1	...	...	...	...	...	...	...	...	...	...	...	1	...	1	...	1
Ischuria, renalis	1	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	1
Kidneys, abscess of	2	...	...	...	...	1	...	...	...	...	...	...	1	2	...	...	3
Kidneys, carrhosis of	...	1	...	...	...	...	...	...	...	...	...	...	...	1	...	...	1
Kidneys, disease of	...	2	1	...	2	2	2	1	1	2	1	2	10	6	14	2	16
Melanosis	...	1	...	...	...	...	...	...	...	...	...	...	1	...	1	...	1
Nephria	14	2	8	9	9	10	11	5	7	13	13	12	76	37	111	2	113
Nephritis	6	5	5	7	7	6	14	8	5	5	4	5	47	30	74	3	77
Prostatis.	...	...	...	...	1	...	1	...	1	1	...	...	4	...	3	1	4
Pyelitis	...	...	...	...	...	...	1	...	...	...	...	...	1	...	1	...	1
Uramic poisoning.	4	2	4	5	4	8	2	5	3	1	4	...	23	19	42	...	42
Urethra, stricture of	...	1	...	...	1	...	...	...	...	1	...	...	3	...	3	...	3
Urine, extravsation of.	...	...	...	...	...	...	...	...	...	...	1	...	1	...	1	...	1
Urine, retention of	...	...	...	...	...	...	...	...	...	...	1	...	...	1	1	...	1
Urine, suppression of.	...	...	1	...	...	...	...	...	...	...	...	...	1	...	1	...	1
Total	37	22	26	34	34	41	41	23	22	38	42	30	264	126	381	9	390
ORDER SIX—GENERATIVE.																	
Menstruation, vicarious	...	...	1	...	...	...	...	...	...	...	...	...	...	1	1	...	1
Metritis	...	2	2	...	1	3	1	1	...	...	...	2	...	12	11	1	12
Ovarian tumor	3	...	3	...	...	...	...	1	1	1	...	...	...	9	9	...	9
Ovaritis	...	...	...	...	...	...	...	1	1	...	...	...	...	2	2	...	2
Uterine tumor.	...	1	...	...	...	...	...	...	...	1	...	...	...	2	2	...	2

Uterus, disease of.	...	...	1	...	1	...	...	...	1	1	...	...	...	4	4	...	4
Varicocle	...	...	1	...	...	...	...	...	...	...	...	...	1	...	1	...	1
Total	3	3	8	...	2	3	1	3	3	3	...	2	1	30	30	1	31
ORDER SEVEN—OSSEOUS AND LOCOMOTORY.																	
Caries of vertibræ.	...	...	1	...	...	...	1	...	...	...	...	...	...	2	2	...	2
Eyes, inflamation of	...	...	1	...	...	...	...	...	...	...	...	...	1	...	1	...	1
Hip disease	...	...	...	...	...	...	...	...	1	...	...	...	1	...	1	...	1
Necrosis.	1	...	1	...	...	...	1	...	...	...	...	...	2	1	3	...	3
Periostitis.	...	...	...	...	...	...	...	...	...	...	1	...	...	1	1	...	1
Sacro illiac, disease of	...	...	...	...	...	...	...	...	...	1	...	...	...	1	1	...	1
Total	1	...	3	...	...	...	2	...	1	1	1	...	4	5	9	...	9
ORDER EIGHT—INTEGUMENTARY.																	
Abscess	2	3	1	4	4	1	...	...	...	1	1	2	12	7	19	...	19
Abscess of ear.	...	...	...	...	...	...	...	...	...	...	...	1	...	1	1	...	1
Abscess retropharygnal.	...	...	...	...	...	...	1	...	...	...	...	...	1	...	1	...	1
Abscess of thigh	...	...	...	...	...	...	...	...	...	...	1	...	1	...	1	...	1
Cellulitis	2	...	...	...	1	...	...	...	...	...	...	...	...	3	3	...	3
Erythema	1	...	...	...	...	...	...	...	...	...	...	...	1	...	1	...	1
Muscles, atrophy of.	...	...	...	...	...	...	...	...	...	1	...	...	1	...	1	...	1
Ulcer, chronic.	...	...	2	...	...	...	1	...	...	...	...	...	1	2	3	...	3
Ulcer, seg	...	...	...	...	...	...	...	...	...	1	...	...	1	...	1	...	1
Umbilicus, ulceration of	...	...	...	1	...	...	...	...	...	...	...	...	1	...	1	...	1
Total	5	3	3	5	5	1	2	...	...	3	2	3	19	13	32	...	32
ORDER NINE—MISCELLANEOUS.																	
Dacrocystitis	...	...	...	...	...	...	...	...	...	...	1	...	1	...	1	...	1
Osteitis	...	...	...	...	...	...	...	...	...	...	...	1	...	1	1	...	1
Tumor, undefined.	...	...	...	...	...	...	...	...	...	...	1	1	1	1	2	...	2
Total	...	...	...	...	...	...	...	...	...	...	2	2	2	2	4	...	4
Nervous system.	131	108	100	142	153	157	131	130	126	194	176	175	916	807	1,656	67	1,723
Circulatory	51	35	51	67	58	48	56	36	53	63	62	52	324	308	604	28	632
Respiratory	93	99	137	215	250	254	205	132	92	80	69	72	917	781	1,623	75	1,698
Digestive	94	57	59	73	73	66	58	58	69	108	116	135	489	477	944	22	966
Urinary	37	22	26	34	34	41	41	23	22	38	42	30	264	126	381	9	390
Generative	3	3	8	...	2	3	1	3	3	3	...	2	1	30	30	1	31
Osseous and locomotory	1	...	3	...	...	...	2	...	1	1	1	...	4	5	9	...	9
Integumentary	5	3	3	5	5	1	2	...	...	3	2	3	19	13	32	...	32
Miscellaneous.	...	...	...	...	...	...	...	...	...	...	2	2	2	2	4	...	4
Total Local Diseases	415	327	387	536	575	570	496	382	366	490	470	471	2,936	2,549	5,283	202	5,485

TABLE No. 1—Continued.

CLASS FOUR—DEVELOPMENTAL DISEASES.

Showing total number of Deaths occurring in the State of Indiana, arranged by Classes, Orders, Months, Sex and Color for the year ending September 30, 1884.

DEVELOPMENTAL DISEASES.	1883.			1884.													
	October.	November.	December.	January.	February.	March.	April.	May.	June.	July.	August.	September.	Male.	Female.	White.	Colored.	Total.
ORDER ONE—CHILDREN.																	
Atelectasis	2	1	1	3	1	...	...	...	...	1	...	1	8	2	9	1	10
Birth, injuries	...	...	1	2	...	1	...	3	1	...	2	...	5	5	9	1	10
Birth, premature	18	14	8	19	25	20	15	21	20	24	26	26	128	108	225	11	236
Congenital causes	...	1	1	...	...	...	...	...	3	...	...	...	3	2	5	...	5
Craniotomy	...	...	...	...	...	...	...	...	...	1	1	...	...	2	2	...	2
Cyanosis	3	6	3	4	6	11	4	1	5	14	6	5	37	31	68	...	68
Debility, infantile	2	4	5	5	4	1	5	...	1	4	4	1	16	20	35	1	36
Dentition	2	1	1	1	1	...	2	1	...	1	3	4	11	6	17	...	17
Saryngismus stridulus	...	...	...	...	...	...	...	1	...	...	...	...	1	...	1	...	1
Malformation	1	1	2	1	1	...	...	1	3	2	2	...	7	7	14	...	14
Malnutrition	2	...	1	...	...	...	...	1	1	1	4	2	6	6	12	...	12
Pressure on cord	...	1	...	...	...	...	...	...	...	...	...	...	1	...	1	...	1
Prolapsis funis	...	...	...	...	...	...	...	...	1	...	...	...	1	...	1	...	1
Spina bifida	1	1	1	1	1	4	2	...	...	1	1	4	7	10	17	...	17
Strangulation	...	...	...	...	...	...	1	...	1	...	...	...	...	2	2	...	2
Umbilical cord, disease of	...	...	1	...	...	1	...	...	...	...	...	...	...	2	2	...	2
Umbilical fistula	...	...	...	...	...	...	...	...	...	...	1	...	1	...	1	...	1
Umbilical hemorrhage	2	...	1	1	2	...	...	...	1	...	1	...	4	4	8	...	8
Total	33	30	26	37	41	38	29	29	37	49	51	43	236	207	429	14	443

ORDER TWO—WOMEN.																	
Amenorrhea	...	...	...	1	...	...	...	...	...	...	...	...	...	1	1	...	1
Child-birth, accident at	1	1	...	1	...	...	...	...	1	...	...	...	...	4	4	...	4
Climacteria	...	...	...	...	1	...	...	...	...	1	...	...	...	2	2	...	2
Nursing, sore mouth	...	...	1	...	...	...	...	...	...	...	...	...	...	1	1	...	1
Ovarian, disease	...	...	...	...	...	...	1	...	...	...	...	...	...	1	1	...	1
Parturition	...	1	3	1	2	3	4	1	3	2	3	...	...	23	22	1	23
Pelvic, abscess	...	...	...	...	...	...	...	...	...	...	1	1	...	2	2	...	2
Pelvic, cellulitis	...	...	...	1	...	...	...	...	...	...	...	...	...	1	1	...	1
Placenta, previa	1	1	...	2	...	...	...	1	...	...	...	1	...	6	6	...	6
Phlegmatia, dolens	...	...	...	...	...	...	1	...	...	...	...	...	...	1	1	...	1
Post-partum, hemorrhage	...	2	1	3	1	1	2	1	...	...	...	3	...	14	14	...	14
Puerperal, eclampsia	5	1	2	7	6	5	7	5	2	6	4	9	...	59	58	1	59
Puerperal, hemorrhage	...	...	1	1	1	...	...	...	...	...	...	...	...	3	3	...	3
Puerperal, mania	...	...	...	...	...	...	...	1	...	...	...	...	...	1	1	...	1
Uterine, hemorrhage	1	1	...	4	1	...	1	1	...	1	3	2	...	15	15	...	15
Uterus, rupture of	...	...	...	...	...	...	1	...	...	...	...	...	...	1	1	...	1
Uterus, ulcer of	...	...	...	...	...	...	...	...	...	...	1	...	...	1	1	...	1
Total	8	7	8	21	12	9	17	10	6	10	12	16		136	134	2	136
ORDER THREE—OLD AGE.																	
Old age	19	19	20	31	35	19	33	22	26	38	34	30	162	164	315	11	326
Total	19	19	20	31	35	19	33	22	26	38	34	30	162	164	315	11	326
ORDER FOUR—NUTRITION.																	
Asthenia	5	2	...	4	5	6	8	1	3	3	1	3	15	26	39	2	41
Debility	10	6	5	12	9	12	12	8	11	8	9	10	57	55	107	5	112
Exhaustion	2	2	1	3	2	1	8	2	3	3	3	4	15	19	33	1	34
Marasmus	6	2	2	1	1	3	1	3	3	11	16	17	31	35	62	4	66
Nutrition, imperfect	2	...	...	...	...	...	...	...	...	...	...	...	...	2	2	...	2
Total	25	12	8	20	17	22	29	14	20	25	29	34	118	137	243	12	255
Children	33	30	26	37	41	38	29	29	37	49	51	43	236	207	429	14	443
Women	8	7	8	21	12	9	17	10	6	10	12	16	...	136	134	2	136
Old age	19	19	20	31	35	19	33	22	26	38	34	30	162	164	315	11	326
Nutrition	25	12	8	20	17	22	29	14	20	25	29	34	118	137	243	12	255
Total developmental diseases	85	68	62	109	105	88	108	75	89	122	126	123	516	644	1121	39	1,160

TABLE No. I—Continued.

CLASS FIVE—VIOLENCE, ACCIDENTS AND NEGLIGENCE.

Showing total number of Deaths occurring in the State of Indiana, arranged by Classes, Orders, Months, Sex and Color, for the year ending September 30, 1884.

CLASS FIVE—VIOLENCE.	1883.			1884.									Male.	Female.	White.	Colored.	Total.
	October.	November.	December.	January.	February.	March.	April.	May.	June.	July.	August.	September.					
Order One—Accidents and Negligence.																	
Abortion	1	2	2	1	6	2	1	...	3	2	2	1	...	23	23	...	23
Accident	29	30	22	11	12	8	3	6	6	4	3	3	106	31	135	2	137
Accident, railroad	12	6	10	10	5	4	12	2	8	11	12	17	103	6	106	3	109
Amputation of leg	...	...	...	...	...	1	...	...	...	...	...	...	1	...	...	1	1
Asphyxia	6	2	6	4	2	5	4	1	3	4	...	2	21	18	39	...	39
Blow on the head	...	...	...	...	...	...	1	...	...	...	1	...	1	1	2	...	2
Brain, concussion of	...	...	...	...	1	2	...	...	2	4	3	...	8	4	11	1	12
Burn	5	1	2	10	5	3	4	1	1	4	2	2	10	30	39	1	40
Buzz saw	1	...	...	...	1	...	...	...	...	...	1	...	3	...	3	...	3
Caught in machinery	...	...	...	...	...	...	1	...	...	...	...	...	1	...	1	...	1
Choked by a pea	...	...	...	...	...	...	...	...	...	1	...	...	1	...	1	...	1
Chloroform	...	...	...	...	...	...	...	...	...	...	...	1	...	1	1	...	1
Coal mine	...	...	2	...	...	...	...	...	...	1	...	1	4	...	4	...	4
Concussion	...	...	...	...	...	...	...	...	...	...	...	1	1	...	1	...	1
Crushed by saw log	...	...	...	...	1	...	...	...	...	...	...	1	2	...	2	...	2
Cut jugular vein with ax	...	...	...	...	1	...	...	...	...	...	...	...	1	...	1	...	1
Drinking concentrated lye	...	...	...	...	1	...	...	...	...	...	...	...	1	...	1	...	1
Drowned	1	...	2	3	3	1	3	4	16	14	5	5	48	9	46	11	57
Explosion of boiler	...	...	...	...	...	...	...	...	...	3	2	...	5	...	5	...	5
Explosion of cannon	...	...	...	...	...	...	...	...	1	...	...	...	1	...	...	1	1
Explosion of dynamite	...	...	...	...	...	...	2	1	...	1	1	...	5	...	5	...	5

Explosion of gunpowder	...	...	1	...	...	...	...	...	...	...	...	...	1	...	1	...	1
Explosion of locomotive	...	...	...	...	...	...	...	...	...	...	1	...	1	...	1	...	1
Exposure to cold	...	...	...	2	2	...	...	...	...	...	...	...	4	...	3	1	4
Fall	...	...	...	...	...	...	...	2	2	3	2	3	8	4	12	...	12
Falling derrick	...	...	...	...	...	...	...	...	...	...	2	...	2	...	2	...	2
Falling tree	...	...	...	...	...	...	1	...	...	...	1	...	2	...	1	1	2
Falling wall	...	...	...	...	...	...	...	...	...	...	1	...	1	...	1	...	1
Fracture	...	...	...	...	...	...	...	...	...	...	1	1	2	...	2	...	2
Fracture, arm	...	...	...	...	...	...	...	...	...	1	...	...	...	1	1	...	1
Fracture, femur	...	...	...	1	...	...	...	1	1	2	...	1	1	5	6	...	6
Fracture, fibula	...	...	...	...	...	...	...	1	...	...	...	...	1	...	1	...	1
Fracture, hip	...	...	...	...	...	...	...	...	...	1	...	...	...	1	1	...	1
Fracture, leg	...	...	...	...	1	...	...	...	...	...	...	...	...	1	1	...	1
Fracture, neck	...	...	...	...	...	1	...	...	...	2	...	...	...	3	3	...	3
Fracture of skull	...	...	...	2	...	2	...	2	...	1	2	1	10	...	10	...	10
Fracture of spine	1	...	...	...	...	1	1	1	1	...	3	...	4	4	6	2	8
Gunshot wound	7	2	1	6	...	1	1	2	...	4	2	4	28	2	30	...	30
Hanging	...	...	...	...	...	...	...	...	...	1	...	...	1	...	1	...	1
Hemorrhage from wound	...	...	...	...	...	...	...	...	...	...	1	...	1	...	1	...	1
Injury	...	...	...	...	...	...	...	...	1	...	...	1	2	...	2	...	2
Kicked by a horse	...	...	...	...	...	...	2	...	...	2	...	2	6	...	6	...	6
Kicked by a mule	...	...	...	...	...	...	1	1	1	...	...	...	3	...	3	...	3
Killed by a bull	...	...	...	...	...	...	...	...	...	1	...	...	1	...	1	...	1
Killed by a reaper	...	...	...	...	...	...	...	...	...	1	...	...	1	...	1	...	1
Lightning	...	...	...	...	...	...	...	...	3	4	...	...	7	...	7	...	7
Pistol shot	3	1	1	...	...	...	...	...	...	...	4	...	7	2	9	...	9
Poison	2	3	1	1	4	...	1	1	...	2	2	...	9	8	17	...	17
Poison, arsenic	...	...	...	...	...	...	...	1	...	...	1	...	...	2	2	...	2
Poison, greens	...	...	...	...	...	...	1	...	...	...	...	...	...	1	1	...	1
Poison, lobelia	...	...	...	...	...	...	...	1	...	...	...	...	1	...	1	...	1
Poison, morphine	...	...	...	...	...	2	...	...	...	...	1	2	4	1	5	...	5
Poison, opium	...	...	...	...	...	1	3	...	1	2	...	1	5	3	8	...	8
Poison, strychnia	...	...	...	...	...	...	...	...	2	...	...	...	2	...	2	...	2
Poison, white lead	...	1	1	...	...	...	...	...	...	1	...	...	3	...	3	...	3
Powder burn	...	...	...	...	...	...	...	...	...	1	...	...	1	...	1	...	1
Punctured wrist by needle	...	...	...	...	...	...	...	...	...	...	1	...	...	1	1	...	1
Removal of tumor	...	...	...	...	...	...	...	...	...	...	...	1	...	1	1	...	1
Run-away team	...	...	...	...	...	...	...	...	...	...	...	1	1	...	1	...	1
Run over by dray	...	...	...	...	...	...	...	1	...	...	...	...	1	...	1	...	1
Scald	1	...	...	...	2	1	1	...	1	...	2	1	6	3	9	...	9
Shock	...	...	...	...	1	...	2	...	...	...	...	...	...	3	3	...	3
Shock from amputation	1	...	1	...	...	...	...	...	...	...	...	...	2	...	2	...	2
Shock from operation	...	...	...	...	...	...	...	1	...	1	1	...	1	2	3	...	3
Shot	...	...	...	...	...	...	...	3	1	...	...	...	4	...	4	...	4
Shot by a policeman	...	...	...	...	...	...	...	...	...	...	1	...	1	...	1	...	1
Spine, concussion of	2	...	1	...	1	...	...	...	...	...	...	...	4	...	4	...	4
Spine, injury of	...	...	...	...	...	...	...	...	2	...	...	...	2	...	2	...	2
Strangulation	...	...	...	1	...	...	...	...	...	...	...	...	...	1	1	...	1
Struck by a stone	...	...	...	...	...	...	...	...	...	...	...	1	1	...	1	...	1
Suffocated by mother	...	...	...	...	...	...	1	...	...	...	...	...	...	1	1	...	1

TABLE No. I—CLASS FIVE—VIOLENCE, ACCIDENTS AND NEGLIGENCE—Continued.

CLASS FIVE—VIOLENCE.	1883.			1884.													
	October.	November.	December.	January.	February.	March.	April.	May.	June.	July.	August.	September.	Male.	Female.	White.	Colored.	Total.
ORDER ONE—ACCIDENTS AND NEGLIGENCE—Continued.																	
Sunstroke	...	...	...	...	...	...	...	1	2	...	1	...	3	1	4	...	4
Thrown from carriage	...	...	...	...	...	1	...	...	...	...	...	...	1	...	1	...	1
Thrown from horse	...	...	...	...	...	...	...	...	...	...	1	2	3	...	2	1	3
Thrown from mule	...	...	...	...	...	...	...	1	1	...	...	...	2	...	2	...	2
Violence	...	...	2	...	...	...	1	...	...	...	...	...	2	1	3	...	3
Wound in head	...	...	...	...	...	...	...	...	...	...	1	...	1	..	1	...	1
Total	53	49	39	46	38	57	79	66	56	72	43	54	476	176	628	24	652
ORDER TWO—HOMICIDE.																	
Homicide	2	2	1	...	1	...	1	1	2	1	...	...	9	2	10	1	11
Stabbed	...	...	...	1	...	1	...	...	...	...	...	...	2	...	2	...	2
Total	2	2	1	1	1	1	1	1	2	1	...	...	11	2	12	1	13
ORDER THREE—SUICIDE.																	
Suicide	11	4	5	8	3	3	2	6	2	2	2	4	38	14	52	...	52
Suicide, arsenic	...	...	...	...	...	...	...	...	1	...	...	1	2	...	2	...	2
Suicide, corrosive sublimate	...	...	...	...	...	...	1	...	...	...	...	...	1	...	1	...	1
Suicide, cutting throat	...	...	...	...	...	2	...	1	...	2	1	1	5	2	6	1	7
Suicide, drowning	...	...	...	...	1	...	4	...	...	2	...	1	2	6	8	...	8
Suicide, gunshot	1	...	...	...	...	...	...	...	1	...	...	...	2	...	2	...	2
Suicide, hanging	1	1	...	1	...	2	3	2	5	2	1	2	18	2	20	...	20
Suicide, hydrate chloral	...	...	...	...	...	...	...	...	...	1	...	...	1	...	1	...	1
Suicide, laudanum	...	...	...	...	...	...	...	...	...	1	...	...	1	...	1	...	1
Suicide, morphine	...	...	...	...	...	...	...	1	3	4	1	...	7	2	8	1	9
Suicide, opium	1	1	...	...	...	...	...	...	...	...	1	2	5	...	5	...	5
Suicide, paris green	...	...	...	...	...	...	...	...	...	1	...	...	...	1	1	...	1
Suicide, pistol shot	...	...	1	...	...	...	...	1	3	2	3	4	13	1	14	...	14
Suicide, poison, undefined	...	...	...	1	...	...	...	...	...	...	1	...	1	1	2	...	2
Suicide, "Rough on Rats"	1	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	1

Suicide, severing jugular vein	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	1	. . .	. . .	1	. . .	1	. . .	1
Suicide, strangulation	. . .	. . .	. . .	. . .	. . .	1	1	. . .	. . .	. . .	. . .	. . .	2	. . .	2	. . .	2
Total	15	6	6	10	4	8	11	11	15	18	10	15	99	30	127	2	129
Unknown	31	19	19	27	28	41	27	18	26	36	27	19	186	132	312	6	318
Accidents and negligence	53	49	39	46	38	57	79	66	56	72	43	54	476	176	628	24	652
Homicide	2	2	1	1	1	1	1	1	2	1	. . .	. . .	11	2	12	1	13
Suicide	15	6	6	10	4	8	11	11	15	18	10	15	99	30	127	2	129
Unknown	31	19	19	27	28	41	27	18	26	36	27	19	186	132	312	6	318
Total Violence	101	76	65	84	71	107	118	96	99	127	80	88	772	340	1,079	33	1,112
RECAPITULATION.																	
Class One	400	263	201	275	246	276	223	182	182	487	590	625	1,953	1,997	3,808	142	3,950
Class Two	232	204	164	300	228	308	300	248	200	279	250	221	1,244	1,690	2,742	192	2,934
Class Three	415	327	387	536	575	570	496	382	366	490	470	471	2,936	2,549	5,283	202	5,485
Class Four	85	68	62	109	105	88	108	75	89	122	126	123	516	644	1,121	39	1,160
Class Five	101	76	65	84	71	107	118	96	99	127	80	88	772	340	1,079	33	1,112
Grand total*	1,233	938	879	1,304	1,225	1,349	1,245	983	936	1,505	1,516	1,528	7,421	7,220	14,033	608	14,641

* Exclusive of still births.

The slight reduction in the deaths from croup, coincides very closely in the reduction of mortality from diphtheria. The results of the three years' statistics upon this malady confirms our previously expressed opinion, regarding the identity of the two maladies, true croup and diphtheria. In this connection we wish to reiterate our words of warning in last year's report. It is earnestly desired that physicians, parents and nurses, appreciate the fact that very much, now denominated croup, is a dangerous, infectious, zymotic disease; and the same careful prophylactic measures should be adopted in cases of this disease as are recommended in diphtheria. In consequence of the non-observance of these precautions the spread of the malady and the loss of valuable lives are not unfrequent." In fact all cases of true croup should be treated as cases of preventable disease.

INTESTINAL DISEASES.

Diarrhea, dysentery, and entero-colitis, caused 362 deaths, or 2.47 per cent. of the total mortality, while last year these diseases caused but 267 deaths, or 1.78 per cent. of the total mortality. This excess corresponds with that of the increase from choleraic diarrhea and establishes the truth of the general opinion regarding a tendency toward intestinal manifestations of diseases during the year.

DIPHTHERIA.

This malady is responsible for 239 deaths within the year, or 1.63 per cent. of the total mortality. From the same cause there were 309 deaths last year, or 2.07 per cent. of the total mortality. This is certainly gratifying, for the disease appeared in no less than fifty-eight counties in the past year and in but fifty-one the year before. The surroundings in many counties were worse than last year, the result of the long continued floods and wet weather during last spring. As will be seen, the deaths averaged but 4.1 per cent. for each infected county, against 6.05 deaths for each infected county last year. This malady has been unusually malignant in many parts of the United States and it demands the most careful attention from sanitarians. We have given instructions to the county health officers to exercise the most rigid scrutiny in regard to it, and to resort to prompt measures to prevent its spread wherever it has appeared. We confidently believe that the measures adopted by the county health officers have been successful in arresting the malady and that many lives have been saved by these well directed efforts. This disease is certainly one of the most insidious, dangerous and infectious that we are forced to contend with, and one that depends largely upon local surroundings for its propagation and upon unhygienic influences for its virulence. We find that it is a potent cause of death in all countries. In some districts in Russia it is epidemic and thousands of children are swept away by it from amidst the filth, squalor, wretchedness and ignorance of the peasantry. In some districts nearly all children lose their lives, before reaching ten years of age, during the prevalence of this disease in epidemic form. Throughout the United States, during the year 1880, no less than thirty-eight thousand, three hundred and ninety-eight lives were lost by diphtheria, a mortality of 5.07 per cent. of the total mortality; and 52.3 per thousand of all reported deaths. In the city of New York, eight thousand three hundred and seventy-two lives were lost from it from 1874 to 1880; in Brooklyn six thousand nine hundred and four during the same period, and other cities suffered in like manner. The disease appears to be increasing not only in our country but all over the world. Why such a thing should occur is a problem for the sanitarian. This disease should be shorn of its terrors. Our opinion is that a very general want of appreciation of its dangerous, infectious character exists. Thus in Russia no provision for isolation, seclusion, or disinfection prevails.* The priest takes the consecrated wafer from the lips of the dying and dead and places it upon the tongue of the living. In our own country the utmost carelessness in regard to the infection prevails. Less than four years ago, in the city of Indianapolis, an intelligent minister of the gospel called the children of a private sectarian school around the open coffin of a child dead from diphtheria, and, after marching around the same for a few minutes, they all kissed the poisonous lips of the dead child. In a southern county of the State a like occurrence took place at a public funeral and twenty cases of diphtheria among the school children was the penalty. Reports show this disease is most deadly in counties sparsely settled and where, we fear, sanitation is but imperfectly understood. There are many physicians, practicing in Indiana to-day, who deny the contagious and infectious character of the disease. Recognizing this fact and in order to secure reliable data, the following blank was sent to the health officers in the counties reporting deaths from diphtheria.

INDIANA STATE BOARD OF HEALTH.

Secretary's Office, 20 *and* 21 *Masonic Temple, Indianapolis.*

REPORT ON DIPHTHERIA.

By..................................M. D.,

....Ind.

DEAR DOCTOR: Since October 1, 1883, the Board of Health of your county has reported —— deaths from diphtheria having occurred in the county. Recognizing this disease as a zymotic one, belonging to the preventable class, and largely due to unhygienic influences, in order to more completely protect the public against future outbreaks of this malady, I am anxious to ascertain all the facts in connection with its occurence and prevalence in this State. Will you be kind enough to furnish me with the history of the disease as it occurred in your locality. In order to secure a uniformity of reports and detailed information, will you please use this blank, returning the same to me in the enclosed addressed envelope, not later than the 25th of this month.

E. S. ELDER, M. D.,
Secretary and Executive Officer.

Question 1. How many cases of the disease occurred in your county?......

Question 2. How many deaths?......

Question 3. How did the disease originate?......

Question 4. How was it spread?......

Question 5. Were there any evidences of its contagiousness?......

Question 6. How many cases in each family?......

Question 7. Was isolation and disinfection resorted to?......

Question 8. Can you give any cause for the outbreak and spread of the disease?......

Question 9. Were the funerals of persons dead from diphtheria public?...... Were the coffins opened after the bodies had been placed in them?......

Question 10. Give any other information you may deem pertinent. ......

Returns on this subject have been received from thirty-seven counties, some of which are submitted with this report:

REPORT ON DIPHTHERIA.

BY E. L. ANNIS, M. D., LAPORTE, IND.

1. Sixty-six; from October 1, 1883, to January 1, 1885.
2. Six.
3. Endemically in most cases, contracted in a few.
4. Probably by infection in some cases, although the greater number were affected without any known exposure.
5. No positive evidence of contagiousness was reported.
6. From one to five.
7. They were.
8. Bad sanitary surroundings and drainage.
9. No.—No.
10. Children were mostly affected, oftentimes only one in a large family.

REPORT ON DIPHTHERIA.

BY JOHN E. MARKLE, M. D., WINCHESTER, IND.

1. Thirty-five.
2. Seven.
3. Unknown.
4. Did not spread.
5. No.
6. One.
7. In some cases. I think most of the cases that are reported diphtheria is nothing more than tonsillitis.
8. No. I think we have had but a very few cases of true diphtheria in the county.
9. No.—No.
10. I visited some cases that were reported as diphtheria and found the diagnosis incorrect.

REPORT ON DIPHTHERIA.

BY F. M. HARRIS, M. D., VINCENNES, IND.

1. Six.
2. Four.
3. Supposed to have originated from sleeping in a room immediately over a butcher shop (in four cases), can't say as to the other two.
4. The children all slept in same room.
5. Yes.
6. Four in one and two in the other.
7. Only very imperfectly.
8. Only as stated above; the children in the family in which the disease originated slept immediately above a very filthy room used for cutting meats, and in which scraps of meat were allowed to remain often until spoilt.
9. No.—No.
10. The physician who attended the two children who recovered is dead, and I can learn but little about the cases; I did not see the other cases, and have given all the information I have been able to obtain.

REPORT ON DIPHTHERIA.

BY T. A. GRAHAM, M. D., JEFFERSONVILLE, IND.

1. Seven.
2. Four.
3. Unknown.
4. Not reported; the disease has not prevailed in this county as an epidemic.
5. No; there was but one case in each family.
6. One.
7. Yes.
8. No, excepting atmospheric causes; in nearly every case the sanitary surroundings were bad.
9. No.—No.
10. The disease prevailed here sporadically, with comparatively no tendency of becoming epidemic.

REPORT ON DIPHTHERIA.

BY M. G. BLISS, M. D., LAKE COUNTY, IND.

1. Thirty-nine, as reported.
2. Twenty-three, as reported.
3. As an endemic.
4. Am unable to say.
5. Not that I am aware of.
6. 4, 1, 2, 1, 4, 1, 1, 2, 1, 3, 4, 1, 1, 1, 7, 3, 1, 1.

7. Isolation as far as possible under the circumstances; disinfection in all cases.

8. ———

9. No.—No.

10. I can summarize all in a few words. Whenever certain conditions obtain in any given locality there will be cases of diphtheria, whether the one affected has been exposed to a specific case or not; of course when the disease has broken out in a family, the conditions are intensified, better fed, better clothed, more comfortable quarters would lessen the danger of taking the disease, but none may be exempt from it, but as a usual thing those people who allow their children to go with damp feet and thinly clad are the ones generally who are taken down; not always. Now then for the conditions: In any locality where there is a clay subsoil, almost impervious to water, holding it as in an earthen vessel, and allowed to evaporate without any natural or artificial drainage, there you have the conditions for all and any zimotic diseases. I wish to emphasize this matter of drainage. Wherever this is done well and thoroughly, I think we can bid defiance to all zimotic diseases. It is my opinion, wherever this scourge exists, whether in town or country, it is all owing to defective drainage or sewage. It is a notable fact that in this town of 2,500 inhabitants there has not, to my knowledge, a case of diphtheria occurred in the last year. During those excessive wet and open winters—1881 and 1882, we had a few cases of diphtheria in town.

REPORT ON DIPHTHERIA,

BY MORRIS DRAKE, M. D., SHELBY COUNTY, IND.

1. Eight.

2. Five.

3. Only reported in one family viz: By contact (two sick, one died), others sporadic.

4. I know of no spreading of the disease, as but one family (or perhaps two) having more than one infected.

5. None that I ever hear of outside of the families where more than one was affected.

6. Two in two, perhaps others one each.

7. That, I am unable to state, as most cases were never reported by the physician until after the patient had died or recovered, and then the report was indefinate; in some cases it was adhered to.

8. I can give no cause, as most all of the cases were in the country and I presume the sanitary surroundings were good, which in a degree accounts for so few cases in any locality.

9. Yes.—I know of none to the contrary. Not reported.

10. I heard of cases called diphtheria, and to my certain knowledge, they were not, being nothing more or less than an inflammation of throat and tonsils; most of the *so-called* "diphtheria cases" were not reported to me, only to the public.

REPORT ON DIPHTHERIA.

BY W. W. HITCHCOCK, M. D., SOUTH BEND, IND.

1. Sixteen.
2. Nine.
3. Endemically and by contagion, as near as could be ascertained.
4. By contagion.
5. Yes.
6. Two in three and three in four families.
7. In most cases, except where it was too late, isolation was advised.
8. Unhygienic surroundings, etc.
9. Most of them.—Not known.

REPORT ON DIPHTHERIA.

BY LAGRANGE SEVERANCE, M. D., HUNTINGTON COUNTY, IND.

1. ———
2. Six.
3. Not known.
4. Was not spread.
5. Only in one family, where two children died. These cases were reported as diphtheritic laryngitis, but were genuine diphtheria.
6. In one family two.
7. So far as possible.
8. I can not.
9. No.—No.
10. These cases were sporadic, and their origin can not be traced either to other cases or to any unsanitary mode of living. Doubtless through the neglect of sanitary laws the cause for both diphtheria and typhoid fever constantly exists in and about dwellings in both town and country. This cause—be it gone or not—lies dormant and harmless, as unignited powder, until the human system from depressing influence, is in a condition to develop it. It is not often easy to trace the cause. The water supply may be good, the privy vault well disinfected, and yet some unseen decomposing animal substance may be left around to rot and fester and develop the diseases.

REPORT ON DIPHTHERIA.

BY E. WALKER, M. D., CARROLL COUNTY, IND.

1. Twenty-two.
2. Seven.
3. Not reported.
4. The blanks do not contain any item to report by.
5. Yes.

6. In two families of three, all affected; in one of seven, one affected; in one of six, one affected; in one of four, two affected; in one of nine, five affected; in three of four, one affected; in one of ten, one affected; in one of eight, three affected; in one of five, one affected.

7. This is not reported in the blanks, but so far as my observation extended, it was.

8. No, none whatever, but so far as noticed, it was spontaneous.

9. There were several.—Do not know.

10. ———

REPORT ON DIPHTHERIA.

BY DANIEL M. MARSHALL, M. D., WHITLEY COUNTY, IND.

1. Two hundred and nine.

2. Nineteen.

3. As an epidemic, nearly at the same time in three townships.

4. It did not appear to be from family to family visiting. There was no way by which I could find a local cause.

5. From the number of cases in each family, and the way it appeared, I think not; but infectious in some families.

6. From one to six. In one family of seven six had it; one family, five had it; two families, five had it; five families, two had it; two families, one had it. The above had seven in each family.

7. I requested all our physicians to isolate where it could be done; also, to disinfect by some disinfectant in every family. Whether they done it or not, I can not state.

8. I can not. I have asked the doctors who had the most to do with it, what their opinion was, and they could not give the cause.

9. Some.—Not generally.

10. I advised the ministers to not let the coffin be opened where they could prevent, and they did so.

COLUMBIA CITY, January 26, 1885.

I have given you as near the answers as I can. I want to further state that the epidemic commenced in September, as you will see by the report. It commenced in the middle tier of townships in the county. There was but few cases in the eastern and west part, until lately it is in the west. Now, then, could it be an atmospheric condition? For we have had all this time currents of air from every point of the compass for as much as three days at a time, ——— to the southwest, and yet no appearance of it in that direction, beyond where it was first located. There was another thing connected with the number of cases and deaths. There were more in our foreign than American families. I find in the ten out of the thirteen deaths in our town, ten were of foreign born parents. This I can not account for, for a large class of the families live as well as their American neighbors, unless it is caused by the parent reducing vitality in their offspring by the use of malt beer as a beverage. I might say every family uses it, mothers thinking they can not raise them without it. My opinion is, it destroys vitality, and thereby causes their children to stand less sickness than the abstainer.

REPORT ON DIPHTHERIA.

BY J. H. HIBBERD, M. D., RICHMOND, IND.

1. Fifty-two.
2. Eight.
3. Unknown.
4. Unknown.
5. Nothing special, there being nothing like an epidemic.
6. In one, three; in nine, two; and in each of the others, one.
7. Unknown in most cases, but where under observation, in only a few cases was thorough disinfection practiced.
8. No.
9. Generally, no.—No.
10. You name seven deaths; I find eight by counting the "croup-diphtheritic" case, which was officially, probably, reported croup.

REPORT ON DIPHTHERIA.

BY CANADA BUTTON, M. D., INDIANAPOLIS, IND.

1. Thirty-six reported.
2. Eighteen.
3. Unknown to me, for it already existed in the city at the beginning of the year (October 1, 1883).
4. By not sufficient isolation in some cases, chiefly by neglect by parents and members of family, associating with public, etc.
5. Were in some cases.
6. Two is the most.
7. I think it was in most cases.
8. Can not.
9. No.—I think not.

REPORT ON DIPHTHERIA.

BY A. S. DICKEY, M. D., TIPTON, IND.

1. Eleven.
2. Ten.
3. Most, if not all the cases seemed to be spontaneous; more careful observation, doubtless, would have revealed some cause.
4. It did not appear in an endemic form; cases occurred in different parts of county.
5. I have not been apprised of any. The public, and some physicians as well, appear singularly indifferent as to its contagiousness.
6. Two cases in two families in the same neighborhood, and about the same time.
7. In some cases, but I fear with too lax rules.
8. ———
9. Most were.—I can not learn of any.

10. Filth may be guilty of the origin of the disease, but where a spread of it occurs I feel that the public is the guilty party, perhaps ignorantly so. Its contagiousness ought to be more thoroughly comprehended by the laity, not to mention some of the brotherhood.

REPORT ON DIPHTHERIA.

BY JOHN R. CRAPO, M. D., TERRE HAUTE, IND.

1. Thirteen reported.
2. Eleven reported.
3. There was no known cause or origin.
4. Do not think that it was spread by contagion. The cases with the exception of in one family did occur in separate localities.
5. None at all. The cases were all isolated cases with the exception of the instance mentioned above.
6. They were all single except in one family, where there were three.
7. Yes, with the greatest care. In every case that was reported to the health authorities, children of the family were not allowed to attend school or any public gathering, nor were they allowed to associate with other children or persons.
8. I can not. There did not seem to be any cause for the outbreak of the disease known to the health authorities.
9. No, in no case.—No.
10. ———

These reports are valuable and instructive, and conclusively establish the fact that, where rigid disinfection, isolation and other precautionary measures were adopted, and the dangerous, infectious character of the disease appreciated, it was promptly checked, and it is gratifying to know that so many county health officers indicate their conception of its malignancy. If all physicians and parents recognized in every case of diphtheria a potent cause of danger and a center of infection, and would adopt measures to prevent its spread, the mortality from it would be largely reduced. Sententiously we add: Diphtheria is a dangerously infectious and contagious disease. No case is mild enough to be neglected, or is free from danger. Every case should be isolated, and the utmost care taken to prevent the spread of the disease. All the discharges and excretions should be disinfected and destroyed. The air of the sick-room should be kept pure by free ventilation. Burials of patients should not be attended by children. The corpse should be placed in the coffin as early as possible, and the coffin never opened. Beds, clothing and furniture in the sick-room should all be thoroughly fumigated and disinfected. Cleanliness, disinfection, and isolation are invaluable weapons in the hands of physicians and sanitarians in combating this malady, and with them they should be able successfully to contend against, arrest and overcome the progress of this dangerous foe to the lives of the children of our land. Full directions regarding disinfection are given hereafter in this report, and our dangerous disease circular will be sent to all who may desire it.

CEREBRO-SPINAL FEVER.

This malady caused 147 deaths, or about 1 per cent. of the total mortality during the period for which this report is made. Last year it was fatal in 218 cases, or caused 1.47 per cent. of the total mortality. The disease preserves its former fatality and mysterious pathology, and is of importance from the fact that its fatality is very great, and the sequelæ of the gravest character. Its victims are almost invariably left with permanent lesions of both the muscular and nervous system, and very frequently with the loss of the organs of sight or hearing. As stated in our previous report, the pathology and etiology of this disease have been controverted points. This much, however, is pretty generally received, viz.: That it is a specific zymotic disease, worse during severe cold weather; consequently the name "Cerebro-Spinal Meningitis" has been dropped and that of "Cerebro-Spinal Fever" adopted, and the disease has been classed as a zymotic one. Health officers should adopt this term. It is earnestly desired that physicians study closely all the manifestations of this disease and, if possible, arrive at some satisfactory conclusion in regard to its cause and prevention.

MALARIAL FEVERS.

The group of diseases known as different forms of the manifestations of that peculiar poison denominated malaria, constitute to the physician and sanitarian the most interesting and important group of all the zymotics. Their wide-spread influence impresses nearly all persons and all diseases. This year we include in this family bilious, catarrhal, congestive, continued, inflammatory, intermittent, malarial, pernicious and remittent fevers. These diseases killed 296 of the people of the State, a mortality of 2.02 per cent. of the total. Last year the same diseases caused 353 deaths, equalling 2.36 per cent. of the total mortality. This reduction in malarial diseases is a marked feature of the present report, and has been in progress for the past three years. For many years Indiana had the reproach of being an unusually affected malarial region, and it is possible that the State formerly suffered unduly from that cause, but her mortality from that class of maladies is now as low as that in many States which have enjoyed the reputation of being much less subject to this class of diseases. True, the last season was unusually healthy, and we owe our immunity from an excessive amount of malaria to this cause, but we are fully persuaded that the prevalence of malarial diseases which marked the past decade will never again recur in Indiana. The removal of the dense forests and growth of underbrush which originally covered so large an area of our State, together with the drainage of the immense ponds, swamps, morasses, prairies and marshes, has permanently relieved the State from that degree of malarial poisoning which formerly prevailed, and, with the rapid extension of underground drainage and the proposed removal of the superfluous water along the Kankakee and other parts of the northern portion of our State, we confidently expect a steady diminution in malarial diseases. The paper of Dr. Vinnedge, found elsewhere in this report, is interesting in this particular.

SCARLET FEVER.

This disease prevailed in fifty-five counties, with 178 deaths, or 1.13 per cent. of the total mortality. Last year it prevailed in fifty-six counties, with a mortality of 114, or .76 per cent. of the total mortality. This increase was due to the general prevalence of the malady and its malignant character. In a few counties it assumed a very severe form. We are pleased to say that health officials, physicians and parents generally appreciated the danger from the malady, and promptly inaugurated preventive measures to arrest it. We are gratified to present a report so favorable, showing, as this does, only 3.14 deaths for each infected county. Omitting from this estimate one county, we have an average of but 2.16 per county. The following blank elicited special reports regarding this malady from thirty counties, some of which we present below:

INDIANA STATE BOARD OF HEALTH.

Secretary's Office, 20 *and* 21 *Masonic Temple.*

REPORT ON SCARLATINA.

By.................................M. D.,
....Ind.

Dear Doctor: The .... County Board of Health reports .... deaths from Scarlatina in your county from October 1, 1883, to June 30, 1884. Recognizing as we all do, that this disease belongs to the Zymotic or preventable class, in order to protect the citizens of the State against its ravages in the future as fully as possible I desire to secure as full a history as practicable of every case that has occurred in the State since September 30, 1882. For that purpose I send you this blank, with return envelope. Will you please fill it as completely as you can, and return it to me between now and November 1, 1883.

E. S. Elder, M. D.
Secretary and Executive Officer.

Question 1. How many cases of scarlatina have occurred in your county since September, 1883? ......

Question 2. How many deaths from scarlatina have occurred in your county since September, 1883? ......

Question 3. How did the attacks originate? ......

Question 4. How was the disease spread? ......

Question 5. How many cases occurred in each family? ......

Question 6. Were there any evidences of its infectious nature (by being carried by persons or things from a case to unaffected parties)? ......

Question 7. Was isolation and disinfection resorted to? ......

Question 8. Were the members or infected families prevented from associating with the public, attending school, church, etc.? ......

Question 9. Any other observations interesting, please add.

REPORT ON SCARLATINA.

BY H. V. SWERINGEN, M. D., FORT WAYNE, IND.

1. One hundred.
2. Thirty.
3. Some by exposure to those having the disease, others probably by contaminated air.
4. By contact, and probably atmospheric influences.
5. In some families from one to five cases.
6. In some instances it was the only possible way of accounting for the presence of the disease.
7. Not in all cases.
8. Not in all cases.
9. Many of the physicians in this county in reporting cases of scarlet fever, report them with *diphtheria* as a *complication*, forgetful, it seems, of the fact that in all bad cases of the disease we have very severe throat disease not *necessarily* diphtheritic, as I understand it, unless the two diseases are identical, which I do not believe.

REPORT ON SCARLATINA.

BY A. D. BOOTH, M. D., NOBLESVILLE, IND.

1. Forty-two.
2. Four.
3. Could not say; a majority of the cases were in the families of the best livers in our county.
4. Appeared in different parts of the county about the same time. In the town of Noblesville five cases appeared in different parts of the town inside of four days.
5. One to four.
6. In a very few cases.
7. Yes.
8. As much so as was possible.
9. ———

REPORT ON SCARLATINA.

BY E. L. ANNIS, M. D., LAPORTE, IND.

1. One hundred and fifty-four.
2. Fifty-six.
3. In most first cases the cause was traceable to infection from cases outside the county.
4. Not positively known, probably by infection, although cases occurred without any known exposure.
5. Usually, all the children were attacked.
6. This happened in some cases, although it could be positively traced in only one or two.
7. Yes.

8. They were. Public funerals were not held at houses where patients had died, and the corpse was not removed from the hearse.

9. Of the one hundred and fifty-four cases reported, seventy-one were from the extreme northern part of the county, at Michigan City. The water supply and drainage are bad in some parts of the city.

REPORT ON SCARLATINA.

BY CANADA BUTTON, M. D., INDIANAPOLIS, IND.

1. One hundred and eighty-two, reported.
2. Ten.
3. The disease already existed at beginning of the year.
4. The spread of the disease can not be accounted for in many cases. Not sufficient caution with parents and members of family in associating with the public, attending church, etc.
5. Three was the most.
6. None that I know of.
7. Yes, as well as could be in most cases.
8. They were from attending school.
9. ———

REPORT ON SCARLATINA.

BY JOHN M. ROBINSON, M. D., VERSAILLES, IND.

1. Twelve cases reported.
2. Three deaths have been reported.
3. No opinion is given, and the cases reported came from two locations in the county chiefly.
4. The cause is not given.
5. From two to four.
6. No evidence of its infectious nature has been asserted.
7. I think to a considerable extent.
8. I think so.
9. ——

REPORT ON SCARLATINA.

BY W. W. HITCHCOCK, M. D., SOUTH BEND, IND.

1. Thirty-five.
2. Five.
3. Endemic and by contagion.
4. By the wind and contagion.
5. ——
6. Yes.
7. Yes.
8. Yes, as near as can be known.
9. ——

PUERPERAL SEPTÆMIA, FEVER AND PERITONITIS.

These maladies are doubly dreaded on account of their dangerous character and from the fact that they attack their victims at a time when sympathy, love, joy and hope cluster around the mother and her new-born babe. One hundred and twenty-two mothers lost their lives from these diseases during the year. Last year one hundred deaths resulted from these causes. We have placed these diseases among the zymotic ones, for we believe they are essentially miasmatic, and largely preventable. Cleanliness, disinfection and isolation from erysipelas, diphtheria, and other diseases of this class, will tend to lessen this mortality.

TYPHOID FEVER.

This prolific cause of death cost our State five hundred and ninety-six lives during the year. or 4 per cent. of the total mortality. Last year's report presented six hundred and fourteen, a mortality equalling 4.22 per cent. of the total mortality. This decrease in the number of deaths was unexpected, as the protracted dry weather during the summer lowered the ground water very much, causing many wells to become very low, thus rendering the drinking water more impure. However, we think that the typho-malarial fever supplanted the typhoid to some extent.

This disease is one belonging to civilization, and is doubtless propagated by human agency, and results from some poison engendered by human association and the aggregation of human beings. That it is a specific zymotic one, and in some way associated with the pollution of potable water, is now universally conceded.

The following form of blanks sent to all counties where this disease prevailed largely, elicited replies from fourteen counties, some of which we publish as interesting in regard to the probable causation of the malady:

INDIANA STATE BOARD OF HEALTH.

Secretary's Office 20 and 21, Masonic Temple, Indianapolis.

REPORT ON TYPHOID FEVER.

DEAR DOCTOR:

The .... County Board of Health reports ...... deaths from typhoid fever in your county since September 30, 1882.

Recognizing, as we all do, that typhoid fever belongs to the zymotic or preventable class of diseases, I am anxious to secure as much information regarding the cases reported as possible, in order to be prepared to protect the citizens of the State against the malady hereafter; to that end I hope that you will be kind enough to fill up the enclosed blank and send me between now and November 1, 1883. I send addressed envelope.

E. S. ELDER, M. D.,
Secretary and Executive Officer.

Question 1. How many cases of typhoid fever have occurred in your county since September 30, 1882? ......

Question 2. How many deaths from it? ......

Question 3. Were there any families in which several cases occurred? ......

Question 4. Were there any families in which more than one death occurred? ......

Question 5. If so, how did the outbreak of the disease occur? ......

Question 6. Can you assign any cause for its presence? ......

Question 7. Was the condition of the premises good? .....

Question 8. Was the water supply pure, and safe from pollution? ......

Question 9. Were there any evidences of the contagiousness or infectiousness of the disease? ......

Question 10. Were precautions used in disinfecting and destroying the discharges from the patients? ......

Question 11. Any additional information or observations please insert here. ......

REPORT ON TYPHOID FEVER.

A. R. BURTON, M. D., GIBSON COUNTY, IND.

1. Twenty-five.
2. Fifteen.
3. One family there were two.
4. No.
5. ———
6. In some localities the drainage was bad. In others the disease being confined along Patoka river.
7. In most they were.
8. In some cases I think not.
9. In one locality there was.
10. Yes.
11. ———

REPORT ON TYPHOID FEVER.

GEO. B. WALKER, M. D., VANDERBURG COUNTY, IND.

1. ——.
2. Forty-seven.
3. A few.
4. ——.
5. So far as opinions of physicians agree, it was the result of impure air from animal filth.
6. None other than the above, excepting its slightly infectious or contagious character.
7. They were generally found to be unsanitary.
8. It was generally good.
9. Some evidence of the disease producing its like.
10. So far as I know they were not rigidly enforced.
11. I believe the disease has not been fully reported. Unlike small-pox, it has not created much alarm, and, indeed, the cases have been few. All deaths reported from typho-malarial and typhoid-pneumonia are reported typhoid fever. I suppose in cases where death has occurred the case is reported typhoid, which in case of recovery would not have been so reported.

REPORT ON TYPHOID FEVER.

C. W. MURPHY, M. D., WASHINGTON COUNTY, IND.

1. Twenty-nine.
2. Eleven.
3. Yes, in three families.
4. Yes.
5. ——.
6. The presumption in several cases is, that the source of contamination was in the well water used for drinking and culinary purposes.

7. Not in some instances.
8. Not in all cases.
9. No.
10. In a few instances only.
11. A great many of the cases reported were lacking in the characteristic symptoms of the lesions of enteric fever, and it is probable, therefore, that some of the cases reported as typhoid fever were, in reality, malarial remittent fever, as that disease prevailed somewhat extensively in the county last autumn and winter.

REPORT ON TYPHOID FEVER.

A. G. GARRELL, M. D, WELLS COUNTY, IND.

1. None reported except where death resulted.
2. Seven.
3. Yes.
4. No.
5. A small stream empties into the Wabash one-half mile above Bluffton. It comes from the northeast. In the fall there is a number of stagnant pools, and every fall there is a number of cases in almost every family living near it.
6. I believe the bad condition of the stream to be the cause of cases occurring near it. All other cases were sporadic, and could be traced to no cause.
7. Yes, except the creek referred to, which was ditched and cleaned out last fall.
8. Yes, with the above exception.
9. No.
10. ——.
11. The type, I think, was typho-malarial in general, and the most of the deaths were among those whose systems were debilitated. Last fall the disease was mild in almost all cases.

REPORT ON TYPHOID FEVER.

J. S. ARWINE, M. D., BARTHOLOMEW COUNTY.

1. ——.
2. Nine so reported.
3. Two reported, with two cases.
4. None so reported.
5. No report of any known cause.
6. I can not; nor do I believe that we have had any case of true typhoid in the county.
7. Yes, so far as I could learn, in every instance.
8. As much so as our water is generally. Most of, if not all, our water is obtained from the first sheet of water.
9. No.
10. Yes, in most instances.
11. I believe all our cases were the continued type of autumnal fever, and such is the opinion of our most competent physicians.

REPORT ON TYPHOID FEVER.

H. V. SWERINGEN, M. D., ALLEN COUNTY.

1. Twenty-six.
2. Twenty-six.
3. I have so understood.
4. No.
5. I have made personal investigation in several cases, and was utterly unable to discover even a probable cause or source of the disease. In one case treated by myself, the only typical case I have had since 1876, I was of the opinion that the hydrant water used by the family may have been the source of the infection.
6. I can not; it seems at times to be "in the air," large areas or districts being affected at the same time, the disease breaking out in a number of widely separated patients simultaneously.
7. In almost every instance it was.
8. In the case above cited of my own, I attributed the disease to hydrant water, which I believe is impure. In other cases the water supply seemed pure.
9. None reported, and none came under my observation.
10. Yes.

REPORT ON TYPHOID FEVER.

T. A. GRAHAM, M. D., CLARK COUNTY.

1. Sixty-four.
2. Fifteen.
3. Yes; one had six, one had four, two had two, and three had three cases.
4. Yes; one had four and one had two.
5. In two instances the disease was contracted in Louisville and New Albany, Ind.
6. Contamination of the water supply by decomposing animal and vegetable matter, and in two instances possibly from contamination from the discharges of typhoid patients.
7. No; in one family of thirteen persons the stable was on a hill above the house, and in front of the stable, and between house and stable, was a sink used to throw manure to rot (decompose). In this family there were six cases with two deaths.
8. No; in two localities where the disease prevailed the wells were shallow and supplied from surface water. The months of August, September and October were excessively dry and hot, hence the water supply was exhausted and the contamination more concentrated.
9. Yes; in two instances, vide 5.
10. Yes.
11. From information gathered from careful and reliable physicians in this county I am satisfied that our autumnal diseases are changing in type, *i. e.*, there is less intermittent and remittent or bilious fever, and more typhoid or continued fever.

REPORT ON TYPHOID FEVER.

A. D. B[illegible]TH, M. D., HAMILTON COUNTY.

1. Nine reported.
2. Thirteen.
3. Yes.
4. Yes.
5. One member of the family would take the disease; then from two to three weeks from the time of the beginning of the first case the remainder of the family would be taken.
6. Nothing more than the water supply of one family where the well was dug through an old waste-water sink.
7. In a majority of cases they were reasonably good.
8. In one family where there were two deaths, the water was examined by J. N. Hurty, of Indianapolis, and pronounced dangerous. In the remainder of the cases, so far as was ascertained, it was regarded safe.
9. Yes, in a few cases.
10. Yes.

REPORT ON TYPHOID FEVER.

L. H. KENNEDY, M. D., HENDRICKS COUNTY.

1. Nineteen reported.
2. Twelve.
3. Yes.—Three.
4. Yes.—Two. And two died at the Reform School.
5. One family, six cases and two deaths. Lived in a low, swampy place. A majority of cases in this county occur where there are low wet lands.
6. Not for the sporadic cases. The low, wet lands of this county produce the disease. The drainage of late years has greatly reduced the number of cases.
7. As much so as surroundings would admit of.
8. No. Like all wells in a flat county, shallow and filled with surface water.
9. Yes. One of the six was a nurse.
10. Yes, in most of the cases.
11. In the south part of this county is a stream with low banks, which overflows two or three miles on each side. Very black soil. Heavy timbered. Vast amount of decaying matter, especially of down timber and other vegetable matter. For many years that region of the county was seldom without typhoid fever, and many times during the latter part of winter and early part of spring, severe epidemics of the disease occurred. Since the stream has been deepened and the overflowed country drained, the disease but seldom occurs. In the north part of this county the lands are mostly as described above, with much the same results from drainage, the disease diminishing as the country is relieved of its wet surface.

REPORT ON TYPHOID FEVER.

T. W. GRONENDYKE, M. D., HENRY COUNTY, IND.

1. Twelve.
2. Three.
3. Yes; one.
4. No.
5. ———
6. Yes; in one family all the members of the family, consisting of three persons, had the disease. They used water from a new well just dug in very low ground where it received surface water, and was in this way contaminated with obnoxious matter.
7. No; owing to the low, wet, flat clay land, undrained where house stood, and bad water supply.
8. No, not in case mentioned. In a number of cases where but one case would occur in a family, surroundings seemed to be good and water supply fair.
9. No, not that I observed.
10. I think so, in most cases.
11. I am quite sure, since the organization of our Health Boards that we are having a less number of those zymotic diseases, and am sure we can do still more in that direction.

REPORT ON TYPHOID FEVER.

S. H. PEARSE, M. D., POSEY COUNTY, IND.

1. Do not know.
2. Twelve.
3. Not known.
4. No.
5. Can not answer.
6. I believe it to be from poor sanitary surroundings; the prime cause, water used from wells. This I think from the fact that the same families or some of them have it every year nearly.
7. ———
8. Many cases not.
9. No.
10. I can not answer. But knowing something of some cases, should say no.
11. The physicians do not report to me any cases of typhoid fever, only the deaths, therefore I cannot form any opinion how many cases occur. I also believe that those deaths reported as typho-malarial, are in reality typhoid.

REPORT ON TYPHOID FEVER.

G. W. BENCE, M. D., PUTNAM COUNTY.

1. Seventy-eight.
2. Nine.
3. Yes.
4. Yes.
5. Do not know. One village, Manhattan, with a population of probably two

hundred, has had in the last three years not less than fifty cases; but owing to the present form of the blanks for contagious and infectious diseases it is impossible to get them reported correctly. They call only for "malignant" cases, and do not call for source of contagion or infection. So the only way to get the facts would be to make personal survey of the localities. Have, whenever I heard of cases of typhoid in which I could not get to see the physician of family, sent them by mail one of the preventable disease circulars. In the cases above it was "supposed" by the attending physicians that the source of the disease was the water supply.

6. ——
7. ——
8. ——
9. Yes.
10. Yes.
11. See above.

REPORT ON TYPHOID FEVER.

F. M. HACKLEMAN, M. D., SPENCER COUNTY.

1. Thirteen reported. I received no reports of typhoid fever cases, except those that died, for the reason that my predecessor had instructed our physicians that unless the disease displayed contagiousness and marked malignancy, it need not be reported.
2. Thirteen.
3. No.—None reported.
4. No.
5. ——
6. No; unless occasioned by overflow from Ohio river. A majority of cases occurred in river bottom, where the premises were inundated two consecutive years.
7. Unknown.
8. Unknown.
9. None special.
10. Yes, so far as known.
11. Our physicians, I think, reported some cases that did not possess the characteristic symptoms of the disease.

REPORT ON TYPHOID FEVER.

MORRIS DRAKE, M. D., SHELBY COUNTY, IND.

1. Ten reported; many not reported, I suppose.
2. Four reported.
3. Yes. In one, two cases; others, one.
4. No.
5. In the family where the two were affected, it is supposed the disease originated from the well from which they drank, as no other cause could be assigned or found.

6. None other than given above.
7. Only moderately good.
8. No, as the slops could run into the well; though at this particular place, two were sick, both of whom recovered.
9. Yes, as the young lady who was doing the work became sick and was taken home, where she had typhoid fever, recovered.
10. Not in all cases; in some they were.
11. I have tried to get a full report of the surroundings of some of the places where the disease has occurred, and in most of them no cause of the disease is given. In places (among the poor), where we might expect to find it, no cases have occurred.

REPORT ON TYPHOID FEVER.

W. W. HITCHCOCK, M. D., ST. JOSEPH COUNTY, IND.

1. Seventeen reported.
2. Thirteen.
3. Yes.
4. No.
5. ——
6. Nothing more than the same general causes which have been reiterated by the health officers here in this vicinity, so that all ought to know them.
7. So far as reported, they all seemed good.
8. Not stated.
9. Infectiousness in several instances.
10. In some cases; in most of them no precautions were taken.
11. No.

REPORT ON TYPHOID FEVER.

M. V. B. VICKERY, M. D., TIPTON COUNTY, IND.

1. Twenty-eight cases recorded.
2. Nineteen.
3. Yes.
4. None.
5. ——.
6. ——.
7. In some cases the hygienic surroundings were good, but in most cases it was bad.
8. In most cases it was not. Most of the wells in our county are too shallow, and too little pains taken to keep them free from surface drainage.
9. In some cases such evidence could be observed.
10. In some cases such precautions were advised and observed, but not in all.
11. Many cases of typhoid have not been reported; I believe it safe to say that not more than 12 per cent. A greater part of the deaths, I think, have been reported. I am satisfied that the ratio of deaths to the number of cases, as indicated by the above figures, is entirely too large. Difficult to answer, 5 and 6.

Again, we repeat that every case of typhoid fever is a problem worthy of investigation, and it should be solved by the health officer, and the cause of its presence determined. In a few words let us say, that *typhoid fever* is the result of *specific* poison. That poison is usually connected with the water supply or bad sewerage. Every case of this fever is a focus of infection, and the discharge of the bowels the medium of conveyance; therefore, disinfect and destroy all discharges from the bowels; examine critically the water supply and sewerage. On page —— of this report we give full instructions regarding the prevention of this disease, and circulars of suggestions and instructions concerning the same will be sent to any one desiring them.

TYPHO-MALARIAL FEVER.

Whilst malarial diseases show a reduction on last year's mortality, the deaths from typho-malarial fever show an increase of forty-six, the mortality being one hundred and fifty-seven, or 1.02 per cent. of the total from all causes, against one hundred and eleven deaths, or a mortality of .74 per cent. of the total last year. This increase was not unexpected, for in our last year's report we anticipated an increase of this disease during the next few years, in consequence of the drainage and placing under cultivation such immense areas of our State. With the relief from malarial fevers which attend this work, and the exposure of the freshly drained soil to the action of the sun and air, especially when it is disturbed by the plow or spade, new forms of disease appear to be engendered. One of these is a disease which combines the peculiar manifestations of typhoid and malarial fevers, the essential features of these diseases being retained in a modified form, constituting what is called typho-malarial fever. This term originated with the late J. J. Woodward, U. S. A., and was first applied to a form of disease which was contracted by United States soldiers while engaged with McClellan in the Chickahominy campaign. The term was expressive of a peculiar set of pathological characteristics met with in all malarial regions, and the term has become universally adopted, and will probably be retained in our nosology. The same general directions regarding the prevention of typhoid fever will apply to this malady.

SMALL-POX.

We report, with pleasure, that although this loathsome malady appeared in twenty counties of our State during the year, and in some of them in several outbreaks, yet we had a mortality of one hundred, or .14 per cent. of the total, against a mortality of two hundred and thirteen last year, or 1.42 per cent of the State's total mortality. It is a pleasure to testify to the faithful vigilance with which the county health officers supervised their respective districts. So efficient were their efforts at preventing the spread of the malady, that although the disease, in several localities, presented a marked aspect of malignancy, yet the average number of deaths was less than five to each infected county; and omitting one county, where the disease was allowed to become very widely spread among the worst classes of society, the average deaths from it were only three to a county. There was a very general compliance with the orders of the Board regarding vaccination, isolation, quarantine and disinfection. We have secured reports from every county in which the disease prevailed. The following blanks elicited the report as published:

INDIANA STATE BOARD OF HEALTH.

Secretary's Office, 20 and 21 Masonic Temple, Indianapolis.

REPORT ON SMALL-POX.

By..................................M. D.,

...., Ind.

DEAR DOCTOR:

The......................County Board of Health reports .... deaths from small-pox in your county since September 30, 1882. Recognizing this disease as a zymotic one, belonging to the preventable class, in order to protect the citizens of the State against future outbreaks of the malady, I am anxious to secure a history of all the cases occurring in Indiana for the past year. To that end, will you kindly furnish me with the answers to the following questions upon this sheet, and return the same to me between now and November 1, 1883.

E. S. Elder, M. D.,
Secretary and Executive Officer.

Ques. 1. How many cases have occurred in your county since September 30, 1882?......

Ques. 2. How many deaths have occurred in your county since September 30, 1882?......

Ques. 3. How was the disease introduced?......

Ques. 4. How was it spread?......

Ques. 5. Was vaccination and revaccination promptly resorted to?......

Ques. 6. Was complete isolation and quarantine practiced? .....

Ques. 7. Were the funerals strictly private?...... Were they within twelve hours of death?......

Ques. 8. Were there any deaths of persons who had been successfully vaccinated?...... If so, how soon after vaccination?......

Ques. 9. Did you observe any difference in the protective value of bovine and human virus? If so, in favor of which? ......

Ques. 10. What unpleasant effects of vaccination did you observe, if any?......

Ques. 11. Did those unpleasant effects follow the use of bovine or human virus?......

Ques. 12. Did any school children die with the disease?

Ques. 13. Any other observations please give here.

REPORT ON SMALL-POX.

BY W. H. WELLS, M. D., JASPER, DUBOIS COUNTY, IND.

1. Two.
2. None.
3. By a man by the name of Green, who was staying, at the time in New Albany, but had formerly lived in this part of the county. When it was discovered in New Albany that he had the small-pox, he was ordered to a hospital, but he slipped off, boarded a freight train and stole a ride to Huntingburg, where he went to a boarding-house and gave the disease to one of the servant girls. These two cases were completely and effectively isolated, so that we had no further spread of the disease in our county.

4. ——.
5. It was.
6. Yes, sir.
7. ——.
8. ——.
9. We used only the bovine virus.
10. We had some very sore arms, yet nothing of a serious nature.
11. Bovine virus, as we used no other.
12. ——.
13. We used virus from the National vaccine establishment at Washington, D. C., which proved very efficient and satisfactory.

REPORT ON SMALL-POX.

BY H. V. SWERINGEN, M. D., FT. WAYNE, IND.

1. One.
2. One.
3. Not known; it was a stray case or sporadic; source of infection not discovered.
4. It was prevented from spreading by proper precautions.
5. Yes.
6. Yes.
7. Yes.—Yes.
8. No.
9. None but bovine was used.
10. None.
11. Bovine *only* used.
12. None except the one that died.
13. None, save the fact that in the case referred to above, the disease may probably have been due to a stray, isolated spore or bacterium floating in the air, as no possible cause by contact could be discovered.

REPORT ON SMALL-POX.

BY T. A. GRAHAM, M. D., JEFFERSONVILLE, IND.

1. Thirty-six.
2. Thirteen.
3. From Louisville, Kentucky. (Nancy Baker, a domestic, came from Louisville and found employment in this city; was taken with small-pox three days after arriving here.)
4. By negroes, not protected by vaccination, visiting in Louisville, Ky. After the first three or four cases the spread could be accounted for by personal contact with cases occurring here.
5. Yes.
6. Yes, as nearly as could be practiced. It is almost impossible to have the negroes understand the importance of isolation, hence the difficulty in enforcing complete isolation.

7. Yes.--Yes.
8. No.
9. No; bovine virus was used almost exclusively.
10. None.
11. ———
12. No.
13. My experience with the disease this year confirms my belief in the protective value of vaccination as expressed in answer to this inquiry in my report for 1883.

REPORT ON SMALL-POX.

BY C. P. SCUDDER, M. D., WASHINGTON, IND.

1. Fourteen.
2. Seven.
3. Supposed to have been introduced from old bed-ticks brought from Louisville, Ky.
4. By persons visiting sick persons affected with the disease, before the nature of disease was known.
5. Yes.
6. Yes.
7. Yes.—Yes.
8. No.
9. No difference.
10. In many cases, great swelling, abscesses, and sloughing.
11. Bovine.
12. Yes.
13. ——

REPORT ON SMALL-POX.

BY H. R. LOWDER, M. D., BLOOMFIELD, IND.

1. Four.
2. Two.
3. From jail at Indianapolis, Ind., February, 1884.
4. By contact before the disease was properly diagnosed.
5. Yes.
6. Yes.
7. ——
8. ——
9. Did not.
10. None of any consequence.
11. ——
12. ——
13. These deaths were not reported to this office.

REPORT ON SMALL-POX.

BY A. D. BOOTH, M. D., NOBLESVILLE, IND.

1. Twenty-three.
2. Five.
3. Carried by Wm. Lowe from the Indianapolis jail into Clay township; carby David McMahan from Indianapolis into Fall Creek township.
4. By Lowe and McMahan.
5. Yes.
6. Yes.
7. Yes.—Yes, with one exception.
8. No.
9. Bovine.
10. In a few cases very sore arms, which was, I think, generally caused by improper use and exercise of the arm.
11. Bovine and human.
12. Yes.
13. Two deaths, probably, occurred in this county by not being vaccinated until after they were exposed. The vaccination entirely failed; they took the disease before it could be repeated.

REPORT ON SMALL-POX.

BY CANADA BUTTON, M. D., INDIANAPOLIS, IND.

1. One hundred and forty-five.
2. Thirty-five.
3. First, by a tramp at the county jail; second, by a man coming from Cincinnati with the disease.
4. Can not state specifically. *Did not* spread from jail; it could not be traced from jail to outside cases at least.
5. Yes.
6. Yes, as well as could be.
7. Yes.—In most cases.
8. Yes.—Unknown.
9. Human virus not used to my knowledge.
10. Nothing unusual.
11. ——.
12. I think not.

REPORT ON SMALL-POX.

BY J. W. SMITH, M. D., GOSPORT, IND.

1. One.
2. None.
3. The patient contracted the disease while traveling in a Western State.
4. It did not spread.

5. All members of the family and persons of the immediate vicinity were vaccinated or revaccinated.
6. It was, and very carefully.
7. ——
8. ——
9. I used only bovine virus.
10. None.
11. ——
12. ——
13. I vaccinated this patient two years before with bovine virus. An early diagnosis, with complete isolation, undoubtedly prevented an epidemic in this locality.

REPORT ON SMALL-POX.

BY F. A. MITCHELL, M. D., CANNELTON, IND.

1. Six.
2. Three.
3. By a young man by the name of Hamel coming into the county from an infected district in Kentucky.
4. By ignorance. The people do not understand the danger of contagion, and the Board of Health alone can instruct them.
5. Yes.
6. Yes, after the County Board of Health knew small-pox was in the county.
7. Yes.—Yes.
8. Not one.
9. No. Although I am of the opinion that none but bovine should be used.
10. None.
11. ——
12. No.
13. ——

REPORT ON SMALL-POX.

F. M. HACKLEMAN, M. D., ROCKPORT, IND.

1. Seventeen.
2. Five.
3. From Owensboro, Ky. By a colored deck-hand off of one of the Ohio river steamers. The patient was in the desquamative stage of the disease when discovered, in a house containing eight persons, all colored.
4. By unvaccinated person who had been exposed before the disease was discovered returning ten miles to his home in the country, and by disinfected clothing, from same person, afterward.
5. Yes. We have a large population of negroes, who don't know the value of vaccination.
6. Yes.

7. Yes.—Yes, from twelve to eighteen hours.
8. No.
9. Bovine virus used altogether.
10. Some very sore arms.
11. ——.
12. No.
13. My experience during the prevalence of small-pox in our county, confirms my belief in the inestimable value of vaccination.

REPORT ON SMALL-POX.

GEO. B. WALKER, EVANSVILLE, IND.

1. Ten cases.
2. One.
3. Generally by the river, from steamboats; sometimes by other boats.
4. Generally by personal contact; sometimes not known.
5. Generally.
6. Yes, as far as practicable.
7. Yes.—Generally.
8. None so reported.—I think some died after old vaccinations.
9. None observed. The protective qualities appeared to be similar.
10. Occasional eruptions almost amounting to small-pox; more commonly deep ulcerations.
11. Bovine virus exclusively.
12. Not from the vaccination, so far as I know.
13. 'The disease, as you may observe, has nearly been absent during the last year. This is doubtless the result of extra sanitary precautions.

The good results of vaccination and revaccination, quarantine and isolation, were again and again demonstrated, and we sincerely hope that the opposition to these protective measures will soon find no support or sympathy from the intelligent citizens of our State. We reaffirm our last year's statement in regard to this matter.

MILK SICKNESS.

During the year there were four deaths from this peculiar disease, whose etiology is so obscure, and although formerly many people of our State annually lost their lives from it, so endemic was it that even its existence has been seriously questioned by those who have never personally encountered the disease. On page — of this report we present a paper upon the malady by Dr. Spaulding, whose opportunities for observing it have been unusually good. We have no doubt that the malady is a specific poison introduced into the system by eating the products of animals previously poisoned by it. That the disease has become nearly extinguished by the process of clearing out the forests and cultivating the lands where it was once endemic, we have no doubt. We think that the time will come when it shall be among the diseases that belong to the past.

EQUINA.

In July a case of glanders in the person of a man in Boone county, was reported to our office. The Secretary, in company with a veterinary surgeon, at once visited the locality and found the patient dead. From the history of the case and the following report of the attending physician, we were convinced that the man died from this loathsome malady, the first reported victim to it in Indiana. The affected horses were promptly destroyed, and the bedding and clothing of the patient were burned.

On the 9th of July, 1884, I was called to see Henry L., who at that time was at the residence of his brother's wife; bachelor, perhaps fifty years old, belonging to a very hardy family; had done a great deal of hard work, and especially had he undergone the worst kind of exposure. I found him with the following symptoms: Pain described as very severe in left side, very little fever, pain increased by motion. Considering his habits, I readily concluded that I had a typical case of pleurisy, for which I prescribed the usual remedies.

The following day, the 10th, I was requested to see him again. Found him with fever increased and that "terrible pain" almost unbearable. I therefore increased the opiate, and gave full doses of verdt veridi. July the 11th I found the patient in the following condition: Fever much decreased, pulse 110, nervous, and skin moist. Patient had passed a comparatively comfortable night, and was greatly elated, as was his sister, who was his principal attendant.

On the following day, July 12, I found all of the symptoms greatly aggravated, the pain in his side intense, pulse 120, full, and inclined to be irregular. During this visit my attention was called to the right knee, which was considerably swollen and slightly painful when at rest. The joint was somewhat stiff, with increase of pain when moving the leg. I re-examined the side without satisfactory results, and blistered the knee.

July 13 I was notified that the patient was again feeling more comfortable, and wished to know if in my judgment it would injure him to be removed to his brother-in-law's, as his sister was anxious to have him at her house. For the satisfaction of all parties I consented. When I saw him in the evening he expressed himself as having suffered no inconvenience during or after his removal. I continued the same treatment, which was substantially as follows: Quinia with salicylic acid in liberal doses during the day, with opiates in quantity sufficient to relieve pain, especially at night.

I did not see the patient on the 14th, he being reported as about the same.

Treatment continued with only slight change until July 16, when he desired me to see him again, calling my attention to a sore on his leg. On examination I found a peculiar dusky red enlargement over the soleus muscle of the right leg, as large as a guinea egg, with light red streaks extending through it and down toward the foot. When I had an opportunity I accused him of having syphilis, which he stoutly denied. I remarked that his blood was in a fearfully bad condition. "Yes," said he, "I have had a little sore for some time on my finger that will not heal." Sure enough it was there, surrounded with that peculiar red border, giving evidence of resisting the process of suppurative granulation.

I had previously told him that at any time he desired counsel to make a selection. At this time the subject was renewed, and Dr. Porter, of Lebanon, was suggested and sent for, but did not come. At this time the pain was not so severe, the fever regulated to a much lower standard, and every indication going to show a typhoid condition. Dr. G. L. Burke, of Jamestown, saw him at this time, and was of the opinion that the patient was laboring under the condition of typhoid pneumonia. I saw the patient the following day, but could note nothing new except the drying up of the blister rapidly which had been applied successively around the knee joint.

On the 19th I did not visit the patient, who was reported to be about the same. From the 20th to the 24th I saw the case once or twice a day, and during this time the sore on the leg had terminated in a large bulla, from which oozed a thin pus resembling in appearance and odor rancid oil. Profuse sweating set in, and although it was very profuse, it did not produce weakness or even a sensation of fatigue.

Having failed signally in my diagnosis, and of course my treatment as well, I set about during the last named period for some better explanation of this most terrible difficulty. Remembering the rumors of glandered horses, I examined authorities. With a dim recollection of some articles written by some one, which I will take occasion to refer to subsequently, I became convinced that I was dealing with a case of equina, and so stated publicly.

From the 24th to the evening of the 28th, when I saw him last, there is little to be said. He gradually grew worse. The last day or two he was an object of pity. When informed of impending death, he was not affected, but rather interested in his worldly affairs, transacting business with his relatives.

When I last saw him, on the afternoon of the 28th, he was trying to swab out his throat with a piece of cloth with one hand, while with the other he was battling the air for breath. His nose was swollen, also all around his eyes. A thin discharge was being thrown from his nose, and promiscuously in such a way that I feared for myself and his attendants. He died on the night of the 29th, (keeping up these symptoms to the last, as his family informed me,) just twenty days from the time I first saw him.

Having business in Danville that day, I described the case to Dr. Kennedy, who notified Dr. E. S. Elder, Secretary State Board of Health, and he, with a veterinary surgeon, came on the 31st and found that the man was dead. The surgeon examined the man's horse, pronounced him afflicted with glanders, and had him put to death.

While describing the peculiarities of the case to some brother practitioners in Lebanon, some time afterward, Dr. Lane called my attention to an article in the monthly review of "Medicine and Pharmacy," written by Professor Duffield, May, 1880, which Dr. Lane thought was a parallel case, and kindly presented me with the number. When at home I proceeded to compare his with my case, and found it very similar. The more I read the more familiar it appeared, and on more deliberate search I found the self same article on file, evidently the matter I had tried so hard to recall. The difference between Professor Duffield's case and my own was, that in my case there was no notable depression of the vital power until late, and no vesicles over the body unless they appeared a few days before his death, at which time my examinations were rather timid. In my patient the bowels were very constipated from the beginning until within a few days of his death, when there were discharges mixed with blood, which were very offensive. One thing I noted with particular interest was that his appetite was very good. While I had charge of the case I used carbolic acid as a disinfectant without stint.

I am inclined to the opinion that equina is infectious and not contagious, in the ordinary acceptation of the term, else why is it not communicated more readily under such favorable circumstances?

I may never see another such case, and I sincerely trust I never may. If I do, all I can promise is that I hope to make out my diagnosis with less hesitancy.

J. T. Leach,
November 15, 1884. New Brunswick, Ind.

SYPHILIS.

Twenty-eight persons died from the direct poison of syphilis, .18 per cent. of the total mortality. This is an increase over last year of nine deaths. We are fully persuaded that this repulsive malady is on the increase. While this increase has not reached an alarming extent, yet the mere fact that there is an increase is an unpleasant one. We think that the reported mortality very inadequately represents the actual evil effects of this disease upon the public health. Syphilis complicates many causes of disease, and when death ensues, feelings of delicacy and regard for the memory and friends of the deceased, prompts the physician to assign some other cause of death in place of syphilis.

INTEMPERANCE.

This is given as the direct cause of death in twenty-five cases, .16 per cent. of the total number. Last year the number of deaths from this cause was given as forty-nine, or .32 per cent. of the totals. We wish that we could be induced to believe that intemperance was not a more prolific cause of death than indicated by the above figures, or that this decrease in the reported mortality represented a corresponding decrease in the use of intoxicating liquors, as a beverage, among the citizens of our State. But we can not persuade ourselves but that the evil effects of drunkenness upon public health are much worse than are indicated by the above figures. As sanitarians we most earnestly protest against the habit of the steady, constant use of intoxicating liquors as a beverage in excessive amounts.

CLASS TWO—CONSTITUTIONAL DISEASES.

Order One.

This class of diseases killed two thousand nine hundred and thirty-four, persons during the past year, a total mortality of 18.96 per cent. of the whole. Last year two thousand five hundred and forty persons died from the same class, or 17.1 per cent. of the total mortality. We think this proportionate increase is due to the healthfulness of the past season. As healthy seasons prevail the zymotic diseases are less common. Consequently the per cent of deaths from the other classes of disease will be increased. In the first order of these diseases the various forms of cancer caused two hundred and forty-one deaths, or 1.56 per cent. of the total mortality. Last year one hundred and ninety deaths, or 1.27 per cent. of the total were from this cause.

PHTHISIS PULMONALIS.

This, as usual, heads the list of all maladies in point of fatality. The reported deaths from that cause are two thousand one hundred and thirty-two, a mortality equaling 13.85 per cent. of the total from all causes. Last year we had one thousand seven hundred and seventy-three deaths, or 11.87 per cent. of the total mortality. This increase in the mortality we consider due to the protracted cold of last winter, and the cool, wet spring following. An increase in the number of deaths from that disease was observed all over the United States. The alleged discovery of bacillus tuberculosi by Koch, has become a generally accepted fact, and sanitarians are now seriously contemplating the propriety of placing this malady among the preventable class of diseases. Should the discovery of the bacillus be fully demonstrated, a new conception of the malady will warrant a more favorable prognosis in this disease than heretofore, and the adoption of the preventive measures suggested in our last year's report is incumbent upon physicians and nurses.

CLASS THREE—LOCAL DISEASES.

This class caused a total mortality of five thousand four hundred and eighty-one, or 35.63 per cent. of the whole mortality against five thousand three hundred and twenty-four deaths, or 35.82 per cent. of the last year's mortality. Of these deaths one thousand six hundred and seventy-four were from diseases of the nervous system, six hundred and eighteen from diseases of the circulatory apparatus, one thousand six hundred and eighty-nine of these were from diseases of the respiratory system, and nine hundred and sixty three from diseases affecting the digestive apparatus. Three hundred and seventy-seven of them were from urinary affections; forty from diseases of the generative organs; eleven from osseous and locomotory; twenty-nine from integumentary, and fifteen from miscellaneous.

MARRIAGES.

There were eighteen thousand eight hundred and thirty-three marriages reported during the year, 1.23 per cent. of marriages for each death and 2.14 births for each marriage. Last year there were reported nineteen thousand five hundred and sixty-two marriages, 1.31 per cent. to each death and 1.92 births for each marriage.

BIRTHS.

There were born during the year forty thousand three hundred and thirty-four children, of which twenty-one thousand one hundred and seventy-four were males and nineteen thousand one hundred and sixty were females. The proportion of births to deaths is 2.63 births to each death. Last year there were reported thirty-seven thousand six hundred and ninety-five births, males nineteen thousand five hundred and forty-seven, females eighteen thousand one hundred and forty-eight. The proportion of births to deaths last year was 2.52 births for each death.

The proportion of males to the total births this year is 52.5 per cent. of the whole and the females 47.5. Last year's proportion of males was 51.85 and females 48.15 per cent.

COMPARATIVE STATEMENT

Showing number of Cases and Deaths reported from each County from seven causes.

COUNTIES.	DIPHTHERIA.		TYPHOID FEVER		SCARLET FEVER		CEREBRO SPINAL FEVER.		SMALL-POX.		PERTUS-ES.		MEASLES.	
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Adams	5	9	....	3	2	3	....	....	....	....	....	....	....	....
Allen	20	3	....	26	100	32	....	2	....	1	....	7	....	1
Bartholomew	4	2	....	9	....	....	1	....	....	....	....	6	....	2
Benton	3	1	....	4	....	1	....	1	....	....	....	....	....	....
Blackford	....	....	....	6	....	....	....	2	....	....	....	....	....	....
Boone	41	13	....	5	4	....	1	....	....	....	....	6	....	....
Brown	....	1	....	1	....	....	2	1	....	....	4	3	....	....
Carroll	14	5	16	5	11	1	1	1	....	....	....	1	....	....
Cass	3	1	....	2	5	....	5	....	....	....	....	1	....	1
Clark	....	4	....	15	1	1	2	4	34	13	1	2	....	....
Clay	2	1	....	10	....	....	....	....	....	....	....	2	9	3
Clinton	4	9	....	1	1	....	....	1	....	....	....	1	....	....
Crawford	....	....	....	7	....	1	1	4	....	....	....	....	16	4
Daviess	....	....	....	9	....	....	....	2	13	7	....	....	....	....
Dearborn	6	1	12	4	7	....	....	....	....	....	....	....	1	....
Decatur	3	2	17	7	3	....	....	1	1	....	....	3	....	....
Dekalb	10	3	....	....	3	1	....	1	....	....	....	....	....	....
Delaware	12	2	4	5	2	....	....	....	....	....	....	1	5	....
Dubois	....	....	4	4	8	1	2	....	2	....	....	1	2	....
Elkhart	13	1	1	3	14	1	3	....	....	....	2	3	....	....
Fayette	4	....	7	4	4	....	....	3	....	....	....	1	....	....
Floyd	4	4	17	11	66	6	....	2	58	22	....	5	3	1
Fountain	9	1	10	2	3	....	....	....	....	....	....	....	....	....
Franklin	1	....	6	1	17	1	1	....	....	....	....	1	1	....
Fulton	....	1	....	1	1	4	1	....	....	....	....	....	....	....

COMPARATIVE STATEMENT—Continued.

COUNTIES.	DIPHTHERIA.		TYPHOID FEVER		SCARLET FEVER		CEREBRO SPINAL FEVER.		SMALL-POX.		PERTUSSES.		MEASLES.	
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Gibson		1	9	11	8		1	5						2
Grant	6	2		6	5	2		3						2
Green				2				1	2			1		1
Hamilton	9	3	1	13	43	4	1	6	24	5	3	6	280	3
Hancock	8	1		6			3	3			1	2		
Harrison		2		9				9				1		3
Hendricks	6	2	19	12	14							3		
Henry	18	3	1	10			1	1						
Howard	1	2	4	14	3			3				1		
Huntington	4	4	17	14			1	3				3		3
Jackson	4		3	5		1		1	1	1				7
Jasper	3	1		1				1						
Jay	6			2	5	1						3		
Jefferson	2				4	2						2		1
Jennings	4	2	1	1	3							1	12	1
Johnson	15	1	24	8	41	1	1	4	10			1	74	1
Knox	4	6		2	5		2							
Kosciusko	7			7	15	1		3						1
Lagrange	1		2	1	59	2						1	3	
Lake	58	24			6	1					3			
Laporte	29	5		1	148	56						1	4	2
Lawrence		1		3							4	1	155	4
Madison	5	7		9	1			4				2	64	2
Marion	33	23	25	48	183	10	5	8	145	35		5	81	13
Marshall				3				1				1		
Martin		1		1										
Miami		2		1		2						1		1
Monroe	1		5	1			1	1				1		
Montgomery	22	3		3	55	9	5						11	2
Morgan		3		4								1		1

Newton	6	....	....	1	1	1	....	2	....	....	....	....	....	....
Noble	4	3	2	2	9	1	....	....	....	....	....	....	....	....
Ohio	....	....	....	3	2	....	....	1	2	....	....	2	....	....
Orange	....	....	....	2	....	....	....	2	....	....	....	....	....	....
Owen	....	....	....	5	2	....	....	1	1	....	....	4	*	2
Parke	9	2	15	4	1	1	....	2	....	....	....	2	....	4
Perry	2	....	6	7	....	....	....	2	8	5	....	....	....	....
Pike	1	....	....	6	5	....	1	13	1	....	....	....	....	....
Porter	40	4	....	1	40	2	1	1	....	....	....	....	1	....
Posey	....	....	6	12	3	....	....	5	....	....	....	9	....	2
Pulaski	....	....	....	1	10	....	1	1	....	....	....	....	....	1
Putnam	18	1	48	9	11	....	....	....	....	....	*	2	....	2
Randolph	11	7	15	9	17	2	3	3	....	....	....	5	6	....
Ripley	6	2	....	3	16	4	....	....	....	....	3	....	8	1
Rush	25	2	....	8	27	2	....	3	....	....	....	7	....	....
Scott	....	....	....	2	....	....	1	....	....	....	....	....	....	....
Shelby	3	5	....	6	....	2	....	....	....	....	....	1	....	....
Spencer	....	....	....	13	....	....	11	3	17	5	....	....	4	4
Starke	....	....	....	....	....	....	....	....	....	....	....	....	....	2
Steuben	12	....	....	1	8	2	....	....	....	....	....	....	16	....
St. Joseph	9	9	2	13	11	3	....	2	....	....	....	1	....	1
Sullivan	....	....	....	11	....	....	....	1	....	....	....	....	....	1
Switzerland	2	1	....	5	....	....	....	1	....	....	....	....	....	....
Tippecanoe	5	....	....	3	28	3	....	3	3	....	....	2	16	....
Tipton	3	10	....	9	3	....	....	....	....	....	....	1	....	8
Union	....	1	....	3	....	....	....	....	....	....	....	....	....	....
Vanderburgh	18	1	5	29	45	2	....	2	11	3	....	16	405	19
Vermillion	....	3	....	1	....	....	....	....	....	....	....	....	....	3
Vigo	14	11	....	27	69	4	....	2	1	1	....	10	383	8
Wabash	....	3	....	9	....	1	....	3	....	....	....	....	....	2
Warren	....	1	....	2	1	....	....	....	....	....	....	....	....	....
Warrick	....	....	....	9	....	1	....	3	....	2	....	1	....	2
Washington	1	1	19	11	....	....	1	1	....	....	....	....	....	....
Wayne	61	7	8	13	34	....	....	5	....	....	....	3	7	....
Wells	....	....	....	7	....	....	....	1	....	....	....	1	....	....
White	....	....	....	1	....	....	....	1	....	....	....	1	....	....
Whitley	10	....	....	5	....	2	....	1	....	....	....	2	....	....
Total	....	237	....	596	....	178	....	147	....	100	....	152	....	124

*Epidemic

TABLE No. II.

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* DEATHS BY COUNTIES.

Showing total number of Deaths by Counties in the State of Indiana, arranged by Months and Sex, for the year ending September 30, 1884.

COUNTIES.	October.		November.		December.		January.		February.		March.		April.		May.		June.		July.		August.		September.		Males.	Females.	Total.
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.			
Adams	10	14	3	. .	2	2	2	1	2	4	1	2	1	3	2	3	. .	. .	5	. .	8	7	7	8	43	44	87
Allen	20	21	9	10	2	4	22	20	19	20	16	20	21	27	18	17	22	18	56	26	38	29	36	23	279	235	514
Bartholomew	2	3	10	9	9	9	7	10	7	11	6	7	9	12	8	14	9	12	4	9	22	17	13	7	106	120	226
Benton	. .	6	1	1	3	1	2	1	2	4	2	1	3	4	3	1	. .	3	5	1	4	2	2	3	27	28	55
Blackford	2	2	2	1	2	. .	. .	3	1	1	3	3	. .	1	4	. .	1	1	4	8	2	. .	1	1	21	22	43
Boone	7	11	5	12	5	9	8	6	12	8	4	7	15	11	3	8	5	5	8	10	7	10	11	6	91	102	193
Brown	1	4	3	1	1	1	1	1	1	1	5	4	4	2	4	1	2	1	. .	1	2	2	1	1	25	20	45
Carroll	9	5	11	1	2	2	4	4	7	2	7	8	5	4	6	5	2	4	9	3	6	5	9	4	77	47	124
Cass	5	3	5	8	3	5	10	7	8	11	16	12	5	6	5	3	1	6	8	6	8	9	2	4	76	75	151
Clark	14	9	7	4	7	6	14	8	6	10	13	9	4	11	4	4	4	. .	18	12	11	8	16	13	118	94	212
Clay	7	6	6	2	11	3	4	7	8	4	4	9	8	8	2	7	2	5	3	1	3	3	6	5	64	60	124
Clinton	4	6	1	3	3	1	5	4	6	1	2	1	3	1	2	2	. .	. .	. .	3	2	2	. .	2	31	23	54
Crawford	1	2	1	1	1	1	4	4	3	. .	1	1	7	4	3	5	6	. .	8	9	2	4	3	8	40	39	79
Daviess	11	11	5	7	4	4	12	8	6	4	5	3	5	3	4	4	4	2	3	4	4	4	4	8	67	62	129
Dearborn	11	5	8	6	7	6	6	7	. .	3	5	5	5	7	9	4	9	8	5	8	15	17	12	20	92	86	178

Decatur	4	8	7	5	5	8	4	7	7	5	9	6	4	5	3	6	5	8	4	2	3	2	2	2	57	64	121
Dekalb	4	7	. .	1	3	1	2	2	1	3	6	9	. .	8	6	8	4	4	1	1	6	6	4	6	37	56	93
Delaware	2	8	5	3	4	4	5	10	8	10	9	8	7	6	7	6	4	[illegible]	8	3	18	5	10	8	87	76	163
Dubois	11	5	2	. .	5	3	2	3	. .	4	2	2	5	4	3	7	5	1	3	2	4	5	2	2	48	35	83
Elkhart	9	9	3	5	2	. .	6	7	5	1	5	3	2	3	3	3	5	2	6	4	7	13	9	8	62	58	120
Fayette	10	4	2	3	2	. .	5	7	6	3	4	5	. .	1	2	3	3	4	1	5	2	2	6	1	43	38	81
Floyd	15	9	5	15	7	7	15	12	9	8	22	14	9	18	13	12	10	2	13	11	11	13	6	4	135	125	260
Fountain	9	2	1	3	2	3	8	3	2	7	6	6	7	7	5	4	7	3	5	3	8	4	3	5	63	50	113
Franklin	. .	. .	. .	. .	. .	. .	1	2	3	1	4	. .	4	1	5	3	4	3	. .	2	5	3	2	3	27	18	45
Fulton	2	. .	2	. .	4	4	1	1	1	2	2	3	1	1	6	5	1	1	5	1	2	2	2	3	29	23	52
Gibson	8	10	5	3	8	5	5	8	5	8	9	7	14	8	7	3	7	6	11	11	11	7	4	11	94	87	181
Grant	11	5	1	3	3	. .	11	21	4	7	3	3	13	9	4	8	4	3	12	10	13	14	11	7	90	90	180
Green	5	5	3	7	3	2	5	6	6	7	8	3	5	6	4	6	2	3	4	9	3	6	12	3	60	63	123
Hamilton	12	17	6	4	3	3	8	4	9	8	7	5	13	13	10	7	4	6	11	14	20	12	10	11	113	104	217
Hancock	2	3	1	2	2	7	3	4	3	10	10	5	4	5	5	3	4	4	2	4	7	5	3	2	46	54	100
Harrison	10	6	5	5	4	5	9	5	. .	7	5	5	2	4	3	6	2	3	6	9	7	8	5	5	58	68	126
Hendricks	12	13	8	9	8	4	3	11	8	8	13	11	4	10	8	5	9	14	5	8	10	5	6	5	94	103	197
Henry	7	8	2	4	10	7	10	14	8	2	6	7	10	14	10	7	7	9	13	5	5	7	7	9	95	93	188
Howard	1	8	6	2	6	6	6	3	5	5	5	5	8	7	8	2	2	5	8	10	12	6	7	10	74	69	143
Huntington	6	4	4	2	5	11	15	11	16	13	12	12	10	14	8	11	5	8	5	13	16	12	15	21	117	132	249
Jackson	2	11	7	6	5	5	8	3	3	7	3	4	11	6	. .	3	1	3	6	11	12	10	4	14	62	83	145
Jasper	6	6	2	2	1	. .	3	2	5	3	. .	1	2	3	2	1	2	1	1	. .	3	1	4	. .	31	20	51
Jay	2	1	1	1	2	3	5	4	5	12	3	2	5	2	3	1	1	2	5	10	7	7	9	5	48	50	98
Jefferson	8	5	4	6	3	4	9	9	4	1	4	3	5	3	3	2	5	1	5	5	10	4	4	2	64	45	109
Jennings	3	1	7	4	3	4	. .	5	4	5	5	8	1	4	2	3	2	3	6	3	3	4	4	1	40	45	85
Johnson	16	7	4	10	2	8	9	8	3	8	6	5	6	9	5	13	2	4	9	22	8	12	14	9	84	115	199
Knox	9	10	2	3	. .	3	8	4	1	3	3	2	3	5	9	6	5	3	7	5	4	2	9	6	60	52	112
Kosciusko	3	4	5	4	5	2	5	2	5	4	9	8	5	5	4	2	1	. .	12	14	5	3	10	6	70	54	124
Lagrange	. .	4	. .	1	3	. .	4	1	3	2	3	2	6	4	3	6	3	2	3	3	2	2	4	6	34	33	67
Lake	7	11	10	5	1	2	1	. .	5	1	5	5	3	4	1	1	. .	2	5	4	8	4	6	5	52	44	96
Laporte	17	6	9	12	9	12	18	28	18	9	14	15	8	13	14	11	11	8	12	11	19	4	16	7	165	136	301
Lawrence	5	2	4	6	4	4	3	4	4	2	7	2	5	4	3	1	1	2	5	3	4	1	6	1	51	32	83
Madison	3	6	2	9	2	2	12	16	7	11	16	14	12	5	10	15	14	12	11	14	14	11	28	19	131	134	265
Marion	57	53	56	48	69	63	79	77	63	76	117	93	72	80	62	63	51	65	89	76	66	84	77	83	858	861	1,719
Marshall	3	6	1	3	3	5	2	4	2	. .	4	. .	3	3	. .	. .	4	2	3	2	2	1	1	5	28	31	59
Martin	6	20	. .	2	. .	2	2	1	3	. .	. .	1	. .	4	. .	1	2	1	4	3	7	9	1	5	25	32	57
Miami	9	10	6	7	4	3	9	10	14	10	7	9	16	11	6	7	3	6	7	10	15	6	9	11	104	110	214
Monroe	9	3	6	5	4	2	8	8	8	5	7	6	11	9	3	3	3	1	11	10	7	9	4	3	81	71	152
Montgomery	5	7	9	11	6	7	15	14	7	7	6	14	7	11	7	8	5	4	8	9	12	4	7	12	94	108	202
Morgan	4	7	7	2	2	4	4	2	1	3	. .	3	3	2	2	2	1	1	5	3	2	2	6	2	37	33	70

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* Not including still-births.

TABLE No. II—Continued.

COUNTIES.	October.		November.		December.		January.		February.		March.		April.		May.		June.		July.		August.		September.		Males.	Females.	Total.
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.			
Newton	2	3	2	1	. .	2	2	. .	5	3	2	4	3	10	. .	1	1	3	3	. .	2	1	4	4	26	32	58
Noble	1	5	7	1	1	6	2	3	4	8	1	7	2	7	. .	2	4	2	1	4	4	2	7	3	34	50	84
Ohio	1	2	2	. .	2	2	4	3	1	2	. .	3	3	1	2	2	. .	2	. .	3	4	2	4	4	23	26	49
Orange	11	12	2	3	. .	3	5	7	. .	1	6	2	7	7	3	2	2	2	3	5	1	3	5	3	45	50	95
Owen	1	3	4	3	4	1	2	3	3	6	7	9	5	3	. .	2	2	3	3	9	4	7	3	6	38	55	93
Parke	4	4	5	2	2	2	11	3	2	5	9	4	. .	. .	5	4	4	9	4	2	9	5	8	3	63	43	106
Perry	. .	. .	. .	. .	1	3	3	. .	3	4	2	4	1	1	2	2	1	2	5	4	3	6	9	4	30	30	60
Pike	5	7	3	4	5	5	2	3	8	3	3	8	2	3	2	3	1	1	1	8	6	3	6	1	44	49	93
Porter	. .	. .	. .	. .	. .	. .	3	7	3	3	1	2	3	. .	2	2	1	2	2	4	9	5	1	3	25	28	53
Posey	20	10	18	12	17	12	23	17	14	20	10	16	19	5	17	10	13	2	13	7	15	7	19	16	198	134	332
Pulaski	1	1	1	1	2	4	. .	1	3	2	. .	2	1	. .	. .	. .	. .	. .	4	3	4	3	6	2	22	19	41
Putnam	1	2	2	3	1	6	12	12	14	13	11	12	12	7	7	4	1	5	10	3	10	10	6	4	87	86	173
Randolph	10	12	7	13	8	9	15	5	7	7	7	10	10	9	3	5	7	6	6	9	12	9	25	24	117	118	235
Ripley	5	7	10	1	2	5	4	3	6	8	4	7	1	4	3	4	5	. .	6	7	4	6	5	5	55	57	112
Rush	15	9	4	8	5	5	2	6	17	13	3	4	6	3	6	3	4	6	6	10	10	9	15	4	93	80	173
Scott	. .	. .	. .	. .	. .	. .	1	2	1	2	1	2	1	2	2	. .	1	1	3	2	1	1	1	. .	12	12	24
Shelby	10	14	4	4	2	3	3	4	7	4	5	2	4	6	3	1	3	4	7	11	7	7	6	11	61	71	132
Spencer	6	10	6	6	3	7	4	4	6	9	3	4	8	7	3	5	16	8	3	7	13	7	10	13	81	87	168
Starke	. .	1	. .	2	. .	. .	. .	. .	. .	. .	1	1	. .	. .	1	. .	. .	. .	1	1	1	. .	4	1	8	6	14
Steuben	3	. .	3	1	1	4	2	2	1	1	. .	1	. .	. .	2	1	3	1	2	1	.	1	1	1	18	14	32
St. Joseph	4	6	7	7	1	4	6	7	16	9	9	11	7	10	11	6	4	5	11	4	3	7	11	8	90	84	174
Sullivan	8	8	3	2	11	3	7	9	3	6	1	5	4	3	2	4	5	4	6	6	15	7	7	6	72	63	135
Switzerland	3	4	2	1	1	1	7	. .	2	3	. .	1	2	3	. .	3	1	2	2	2	4	2	1	. .	25	22	47
Tippecanoe	2	3	7	7	8	6	10	10	9	11	4	6	3	6	9	6	7	7	3	7	6	6	5	8	73	83	156
Tipton	13	6	2	2	2	3	4	3	1	1	5	9	6	6	6	6	1	. .	4	9	6	3	3	10	53	58	111

Union	1	3	. .	1	3	2	3	1	1	. .	. .	3	3	1	2	. .	2	1	3	2	3	5	2	2	23	21	44
Vanderburgh	32	20	25	31	30	17	39	42	23	23	56	54	29	31	23	27	71	67	66	61	45	45	41	43	480	461	941
Vermillion	. .	1	1	1	2	1	3	1	4	3	1	3	. .	4	2	2	. .	1	3	3	3	2	3	2	22	24	46
Vigo	17	29	23	9	21	16	18	26	32	28	28	30	33	25	13	14	18	19	31	31	33	32	26	22	293	281	574
Wabash	11	13	6	6	5	3	3	5	2	4	1	3	1	6	2	1	. .	. .	6	3	6	2	3	5	46	51	97
Warren	2	2	4	5	4	1	3	4	2	4	3	6	2	. .	2	2	2	. .	. .	. .	. .	. .	. .	. .	24	24	48
Warrick	20	18	3	5	. .	6	5	4	2	2	4	3	. .	3	. .	. .	. .	1	5	11	6	10	15	9	60	72	132
Washington	12	8	3	. .	2	. .	7	3	4	3	2	1	3	7	3	3	5	7	8	3	8	7	8	11	65	53	118
Wayne	22	11	14	19	15	17	18	20	21	21	24	20	21	15	16	16	16	13	19	21	35	30	25	27	247	230	477
Wells	1	1	4	4	4	5	2	2	. .	3	1	2	4	2	2	3	2	3	4	4	2	5	1	10	27	44	71
White	4	4	1	1	4	3	4	3	5	3	1	3	6	6	5	4	5	3	1	3	5	9	4	4	45	46	91
Whitley	2	2	1	2	4	3	5	6	2	8	10	2	2	1	3	3	5	3	7	3	10	4	12	5	63	42	105
Total	660	650	468	447	443	430	670	660	590	614	680	670	610	640	501	481	488	480	720	720	811	705	778	725	7,421	7,220	14,641

TABLE

CLASS ONE—

Showing total number of Deaths occurring in the State of Indiana,

CLASS ONE—ZYMOTIC.	GROUPED AGES AND															
	Under 1.		1 to 5.		5 to 10.		10 to 20.		20 to 30.		30 to 40.		40 to 50.		50 to 60.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
ORDER ONE—MIASMATIC																
Anthrax	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	1	. .	1	. .	. .	. .
Choleraic diarrhœa	. .	2	. .	. .	. .	. .	1	. .	. .	. .	. .	1	. .	. .	. .	. .
Cholera infantum	279	210	71	79	1	3	. .	1	. .	. .	. .	. .	. .	. .	. .	. .
Cholera morbus	4	3	9	5	1	. .	2	1	1	1	. .	. .	. .	1	4	1
Congestive chill	4	5	3	1	1	1	1	3	3	3	. .	3	1	1	1	2
Croup	38	29	44	44	21	3	1	. .	. .	1	. .	. .	. .	. .	. .	. .
Diarrhœa	27	16	12	8	1	. .	2	1	1	1	2	1	. .	2	7	2
Diarrhœa, chronic	3	3	1	4	. .	. .	. .	. .	2	. .	1	1	. .	1	3	1
Diphtheria	12	15	54	67	23	33	5	18	2	1	. .	2	. .	. .	2	. .
Dysentery	22	10	24	27	4	7	7	3	6	6	5	6	4	7	2	7
Dysentery, chronic	1	1	3	3	1	. .	. .	2	. .	1	. .	. .	. .	2	1	. .
Entero colitis	17	16	13	8	. .	3	. .	1	. .	2	1	. .	. .	. .	1	1
Erysipelas	8	11	6	2	. .	. .	1	1	5	1	1	5	2	2	5	5
Fever, catarrhal	5	9	2	2	1	. .	1	1	1	2	. .	1	1	1	3	. .
Fever, cerebro spinal	15	22	21	21	12	10	11	16	3	3	2	2	. .	2	1	1
Fever, congestive	. .	2	4	. .	1	. .	2	1	1	2	1	2	. .	. .	1	1
Fever, continued	. .	. .	. .	. .	. .	. .	1	. .	1	1	. .	. .	. .	. .	. .	. .
Fever, intermittent	. .	1	1	. .	. .	1	. .	. .	. .	1	. .	. .	. .	1	. .	. .
Fever, malarial	8	13	9	16	10	7	6	11	3	11	4	4	2	1	3	5
Fever, pernicious	3	. .	2	1	1	. .	. .	2	1	1	. .	2	. .	3	1	1
Fever, puerperal	. .	. .	. .	. .	. .	. .	. .	6	. .	33	. .	15	. .	9	. .	. .
Fever, remittent	. .	1	5	4	2	1	1	4	3	7	1	2	. .	1	. .	1
Fever, scarlet	9	10	54	39	23	24	4	4	1	4	. .	2	. .	1	. .	1
Fever, typhoid.	3	3	18	13	28	18	59	89	93	73	39	27	26	18	13	15
Fever, typho malar'l	3	3	4	10	10	5	16	20	15	20	6	8	4	7	5	2
Flux	. .	2	. .	1	. .	. .	2	. .	2	1	. .	. .	1	. .	. .	. .
Gangrene	. .	. .	2	. .	1	. .	. .	. .	. .	. .	. .	. .	. .	1	3	1
Measles	17	10	22	21	8	14	3	6	1	4	6	5	. .	5	. .	1
Milk sickness	. .	. .	. .	. .	1	. .	. .	. .	1	1	. .	. .	1	. .	. .	. .
Parotitis	. .	. .	. .	1	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Pertusses	37	59	20	27	2	4	1	. .	. .	. .	. .	. .	. .	. .	. .	. .
Puerperal metritis	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	. .	. .	. .	. .	. .	. .
Puerperal peritonitis	. .	. .	. .	. .	. .	. .	. .	2	. .	6	. .	14	. .	1	. .	. .
Puerperal septæmia	. .	. .	. .	. .	. .	. .	. .	3	. .	16	. .	7	. .	1	. .	. .
Pyæmia	. .	. .	2	1	1	. .	1	1	1	1	1	3	. .	. .	2	1
Rotheln	1	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Septæmia	4	2	1	1	3	. .	2	4	2	10	1	8	4	8	2	3
Small-pox	2	5	7	5	2	1	14	9	18	12	7	4	2	2	3	3
Urticaria	. .	1	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Worms	. .	1	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Total	522	465	419	411	159	135	144	210	167	228	79	125	49	78	63	55
ORDER TWO—ENTHETIC.																
Equina	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	. .	. .	. .
Syphilis, acquired	. .	. .	. .	. .	. .	. .	. .	. .	2	1	1	1	3	. .	2	. .
Syphilis, constitut'nl	. .	7	4	4	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Total	. .	7	4	4	. .	. .	. .	. .	2	1	1	1	4	. .	2	. .

No. III.

ZYMOTIC DISEASES.

Grouped Ages, Sex and Color, for the year ending September 30, 1884.

Sex.												Color.						Grand Total.
60 to 70.		70 to 80.		80 to 90.		90 to 100.		Over 100.		Not Rep'td.		White.		Col'rd.		Total.		
M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
1	1	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	3	2	. .	. .	3	2	5
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	3	. .	. .	1	3	4
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	2	. .	348	285	10	8	358	293	651
7	. .	4	1	2	1	1	. .	. .	. .	1	. .	35	13	1	1	36	14	50
. .	3	4	1	1	. .	. .	. .	. .	. .	1	. .	20	22	. .	1	20	23	43
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	3	104	78	1	2	105	80	185
1	6	3	2	2	2	. .	. .	. .	. .	1	2	58	43	1	. .	59	43	102
1	. .	. .	1	. .	. .	. .	. .	. .	. .	1	1	12	11	. .	1	12	12	24
. .	. .	. .	1	. .	. .	. .	. .	. .	. .	3	1	101	138	. .	. .	101	138	239
12	6	7	13	6	1	. .	. .	. .	. .	. .	2	99	93	. .	2	99	95	184
1	2	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	7	11	. .	. .	7	11	18
. .	1	. .	. .	. .	1	. .	. .	. .	. .	1	. .	33	32	. .	1	33	33	66
4	7	4	2	. .	2	. .	. .	. .	. .	1	. .	36	38	1	. .	37	38	75
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	. .	15	16	. .	. .	15	16	31
. .	1	. .	1	. .	. .	. .	. .	. .	. .	. .	3	62	81	3	1	65	82	147
. .	1	. .	1	. .	1	. .	. .	. .	. .	1	2	10	13	1	. .	11	13	24
. .	1	. .	. .	. .	. .	. .	. .	. .	. .	1	. .	3	2	. .	. .	3	2	5
. .	1	. .	. .	1	. .	. .	. .	. .	. .	1	. .	3	5	. .	. .	3	5	8
3	5	4	4	1	3	. .	. .	. .	. .	3	3	55	75	1	8	56	83	139
4	4	2	1	. .	. .	. .	. .	. .	. .	1	. .	14	14	1	1	15	15	30
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	6	. . .	67	. .	2	. . .	69	69
2	1	1	2	1	1	. .	. .	. .	. .	. .	1	16	24	. .	2	16	26	42
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	2	. .	93	84	. .	1	93	85	178
22	10	5	8	1	1	. .	. .	. .	. .	9	5	302	273	14	7	316	280	596
6	2	4	3	. .	. .	. .	. .	. .	. .	1	3	73	79	1	4	74	83	157
. .	. .	1	. .	. .	. .	. .	. .	. .	. .	. .	. .	6	4	. .	. .	6	4	10
. .	5	8	8	2	1	. .	1	. .	. .	. .	. .	16	17	. .	. .	16	17	33
. .	. .	1	. .	. .	. .	. .	. .	. .	. .	. .	. .	51	60	7	6	58	66	124
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	3	1	. .	. .	3	1	4
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	1	. .	. .	. . .	1	1
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	2	54	89	6	3	60	92	152
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	1	. .	. .	. . .	1	1
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	2	. . .	25	. .	. .	. . .	25	25
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	. . .	27	. .	1	. . .	28	28
2	1	1	. .	. .	. .	. .	. .	. .	1	1	. .	12	9	. .	. .	12	9	21
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	. . .	. .	. .	1	. . .	1
5	2	. .	. .	. .	2	. .	. .	. .	. .	. .	1	24	38	. .	3	24	41	65
1	. .	. .	. .	. .	. .	. .	. .	. .	. .	3	. .	49	31	10	10	59	41	100
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	1	. .	. .	. . .	1	1
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	1	. .	. .	. . .	1	1
72	60	49	49	17	16	1	1	. .	1	36	38	1,719	1,807	58	65	1,777	1,872	3,649
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	. . .	. .	. .	1	. . .	1
2	. .	. .	. .	1	. .	. .	. .	. .	. .	. .	. .	9	2	2	. .	11	2	13
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	2	9	2	2	4	11	15
2	. .	. .	. .	1	. .	. .	. .	. .	. .	. .	. .	12	11	4	2	16	13	29

TABLE No. III—Class One—

CLASS ONE—ZYMOTIC.	GROUPED AGES AND															
	Under 1.		1 to 5.		5 to 10.		10 to 20.		20 to 30.		30 to 40.		40 to 50.		50 to 60.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Order Three—Dietic.																
Delirium tremens	. .	. .	. .	. .	. .	. .	. .	. .	1	. .	2	. .	1	. .	1	. .
Inanition	114	87	7	3	. .	2	1	1	1	1	. .	. .	1	2	2	. .
Intemperance	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	. .	. .	4	5	4	. .
Purpura	1	. .	. .	. .	. .	. .	1	. .	1	. .	. .	. .	. .	. .	. .	. .
Purpura hemorrh'ica	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Total	115	87	7	3	. .	2	2	1	3	2	2	. .	6	7	7	. .
Order Four--Parasitic																
Aphtha	3	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Eczema	. .	. .	. .	. .	. .	. .	. .	. .	2	. .	. .	1	. .	. .	. .	. .
Elephantiasis	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	. .	. .	. .	. .	. .	. .
Thrush	2	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Total	5	. .	. .	. .	. .	. .	. .	. .	2	1	. .	1	. .	. .	. .	. .
Miasmatic	522	465	419	411	159	135	144	210	167	228	79	125	49	78	63	55
Enthetic	. .	7	4	4	. .	. .	. .	. .	2	1	1	1	4	. .	2	. .
Dietic	115	87	7	3	. .	2	2	1	3	2	2	. .	6	7	7	. .
Parasitic	5	. .	.	. .	. .	. .	. .	. .	2	1	. .	1	. .	. .	. .	. .
Grand total Zymotics	642	559	430	418	159	137	146	211	174	232	82	127	59	85	72	55

ZYMOTIC DISEASES—Continued.

SEX.												COLOR.						Grand Total.
60 to 70.		70 to 80.		80 to 90.		90 to 100.		Over 100.		Not Rep'td.		White.		Col'rd.		Total.		
M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
2	. .	1	. .	. .	. .	. .	. .	. .	. .	. .	. .	8	. . .	. .	. .	8	. . .	8
1	2	2	2	1	. .	. .	. .	. .	. .	. .	2	125	94	5	8	130	102	232
3	1	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	11	7	. .	. .	11	7	18
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	3	. . .	. .	. .	3	. . .	3
1	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	. . .	. .	. .	1	. . .	1
7	3	3	2	1	. .	. .	. .	. .	. .	.	2	148	101	5	8	153	109	262
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	3	. . .	. .	. .	3	. . .	3
. .	1	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	2	2	. .	. .	2	2	4
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	1	. .	. .	. . .	1	1
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	2	. . .	. .	. .	2	. . .	2
. .	1	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	7	3	. .	. .	7	3	10
72	60	49	49	17	16	1	1	. .	1	36	38	1,719	1,807	58	65	1,777	1,872	3,649
2	. .	. .	. .	1	. .	. .	. .	. .	. .	. .	. .	12	11	4	2	16	13	29
7	3	3	2	1	. .	. .	. .	. .	. .	. .	2	148	101	5	8	153	109	262
. .	1	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	7	3	. .	. .	7	3	10
81	64	52	51	19	16	1	1	. .	1	36	40	1,886	1,922	67	75	1,953	1,997	3,950

TABLE No. III

CLASS TWO—CONSTI

Showing total number of Deaths occurring in the State of Indiana,

CLASS TWO—CONSTITUTIONAL DISEASES.	GROUPED AGES AND															
	Under 1.		1 to 5.		5 to 10.		10 to 20.		20 to 30.		30 to 40.		40 to 50.		50 to 60.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
ORDER ONE--DIATHETIC.																
Anæmia	3	1	. .	3	. .	. .	1	. .	. .	7	. .	4	1	2	2	3
Anasarca	. .	1	. .	. .	. .	. .	. .	1	2	. .	1	1	2	. .	1	2
Ascites	. .	. .	1	. .	. .	. .	1	. .	. .	1	. .	2	. .	. .	. .	. .
Cancer	1	. .	. .	. .	. .	1	1	. .	2	1	2	6	6	17	10	9
Cancer, abdomen	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	. .	. .	. .
Cancer, bowels	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	1
Cancer, breast	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	2	1	6	. .	4
Cancer, epitholial	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Cancer, eye	. .	. .	1	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Cancer, face	. .	. .	. .	1	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Cancer, fibroid	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	. .
Cancer, heart	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	. .
Cancer, larynx	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Cancer, liver	. .	. .	. .	. .	1	. .	. .	. .	. .	1	. .	4	. .	. .	4	1
Cancer, mesenteric glands	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Cancer, neck	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	1	. .
Cancer, æsophagus	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1
Cancer, rectum	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	. .	1	. .	2
Cancer, stomach	. .	. .	. .	2	. .	. .	. .	. .	. .	3	1	2	7	2	12	7
Cancer, uterus	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	2	. .	10	. .	15
Chlorosis	. .	. .	. .	. .	. .	. .	. .	. .	. .	3	. .	. .	. .	2	. .	. .
Dropsy	2	3	4	2	3	1	8	5	5	5	3	4	10	8	15	9
Goitre exopthalmic	. .	. .	. .	. .	. .	. .	. .	1	. .	1	. .	. .	. .	. .	. .	. .
Gout	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Heart, rheumatism of	. .	1	. .	1	. .	. .	2	. .	1	1	1	. .	1	. .	1	2
Leucocythænia	. .	. .	. .	. .	1	. .	. .	1	. .	4	. .	4	. .	1	1	1
Lupus	. .	. .	. .	. .	. .	. .	. .	. .	1	. .	. .	1	. .	. .	. .	. .
Lymphadenoma	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	1	1	. .	. .	. .
Melanosis	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	. .	. .	. .	. .	. .	. .
Mesenteric glands, idsease of	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	. .	. .
Pancreas, disease of.	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	. .	. .
Rheumatism	. .	. .	. .	. .	1	. .	5	6	5	. .	2	2	1	3	4	3
Rheumatism, inflammatory	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	. .	. .	. .	1	. .	. .
Total	6	6	6	9	6	2	18	14	17	29	11	36	31	56	54	60
ORDER TWO—TUBERCULAR.																
Abscess, psoas	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	. .	. .	. .
Hydrocephalus	19	9	3	4	3	5	. .	1	. .	. .	. .	. .	. .	. .	. .	. .
Laryngitis, tuberc'l'r	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	. .	1	. .	. .	. .
Meni'gitis, tubercul'r	3	13	17	22	12	5	2	6	1	2	. .	1	1	. .	. .	. .
Morbus, coxarius	. .	1	1	. .	. .	. .	2	1	. .	1	. .	. .	. .	. .	. .	. .
Phthisis pulmonalis	28	30	18	38	13	14	63	179	266	432	163	217	120	131	88	77
Potts' disease	. .	. .	. .	1	1	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Rachitis	. .	. .	. .	. .	. .	. .	. .	. .	1	. .	. .	. .	1	. .	1	. .
Scrofula	5	6	6	4	3	3	2	4	6	2	2	. .	. .	1	. .	. .
Tabes dorsalis	. .	. .	. .	1	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Tabes mesenterica	3	1	2	4	. .	2	. .	. .	1	1	1	1	. .	2	1	. .
Total	58	61	47	75	32	29	69	192	274	438	167	219	123	134	89	77
Diathetic	6	6	6	9	6	2	18	14	17	29	11	36	31	56	54	60
Tubercular	58	61	47	75	32	29	69	192	274	438	167	219	123	134	89	77
Grand Total	64	67	53	84	38	31	77	206	291	467	178	255	154	190	143	137

—Continued.

TUTIONAL DISEASES.

Grouped Ages, Sex and Color, for the year ending Sept. 30, 1884.

SEX												COLOR.						Grand Total.
60 to 70.		70 to 80.		80 to 90.		90 to 100.		Over 100.		Not Rep'td.		White.		Col'red.		Total.		
M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
1	1	. .	. .	. .	. .	. .	. .	. .	. .	1	. .	9	21	. .	. .	9	21	30
4	2	2	1	. .	. .	. .	. .	. .	. .	. .	. .	10	8	2	. .	12	8	20
2	3	2	1	1	1	. .	. .	. .	. .	. .	. .	7	8	. .	. .	7	8	15
9	8	7	7	3	. .	. .	. .	. .	. .	3	3	44	51	. .	1	44	52	96
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	. .	. .	. .	1	. .	1
1	1	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	2	2	. .	. .	2	2	4
1	4	. .	5	. .	. .	. .	. .	. .	. .	. .	1	2	19	. .	3	2	22	24
. .	. .	. .	. .	. .	1	. .	. .	. .	. .	. .	. .	. .	1	. .	. .	. .	1	1
. .	. .	. .	. .	. .	1	. .	. .	. .	. .	. .	. .	1	1	. .	. .	1	1	2
1	. .	. .	. .	1	. .	. .	. .	. .	. .	. .	. .	3	. .	. .	1	3	1	4
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	. .	. .	1	3	. .	1
. .	1	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	1	. .	. .	1	1	2
. .	. .	. .	. .	1	. .	. .	. .	. .	. .	. .	. .	1	. .	. .	. .	1	. .	1
3	2	1	1	. .	. .	. .	. .	. .	. .	. .	. .	9	8	. .	1	9	9	18
. .	1	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	. .	. .	. .	1	1
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	1	. .	. .	1	1	2
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	. .	. .	. .	1	1
2	1	1	1	. .	. .	. .	. .	. .	. .	. .	. .	3	6	. .	. .	3	6	9
17	7	7	2	. .	1	. .	. .	. .	. .	1	1	45	27	. .	. .	45	27	72
. .	3	. .	4	. .	. .	. .	. .	. .	. .	. .	. .	. .	33	. .	1	. .	34	34
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	5	. .	. .	. .	5	5
8	14	11	18	3	2	. .	1	. .	. .	5	2	68	66	9	8	77	74	151
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	2	. .	. .	. .	2	2
. .	. .	1	1	. .	. .	. .	. .	. .	. .	. .	. .	1	1	. .	. .	1	1	2
1	. .	1	. .	. .	. .	. .	. .	. .	. .	. .	. .	8	4	. .	1	8	5	13
1	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	3	10	. .	1	3	11	14
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	1	. .	. .	1	1	2
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	2	2	. .	. .	2	2	4
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	. .	. .	. .	1	1
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	. .	. .	. .	1	1
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	. .	. .	. .	1	1
8	2	2	2	. .	1	1	. .	. .	. .	1	1	30	19	. .	1	30	20	50
. .	. .	. .	1	. .	. .	. .	. .	. .	. .	. .	. .	. .	3	. .	. .	. .	3	3
59	50	35	44	9	7	1	1	. .	. .	11	9	253	305	11	18	264	323	587
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	2	. .	. .	. .	2	. .	2
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	1	26	20	. .	. .	26	20	46
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	2	. .	. .	. .	2	. .	2
. .	. .	. .	. .	. .	. .	1	. .	. .	. .	. .	. .	34	49	3	. .	37	49	86
. .	. .	. .	1	. .	. .	. .	. .	. .	. .	. .	. .	3	5	. .	. .	3	5	8
55	47	23	30	7	7	. .	2	. .	. .	31	53	810	1,172	65	85	875	1,257	2,132
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	. .	. .	1	1	1	2
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	3	. .	. .	. .	3	3
. .	. .	. .	. .	1	. .	. .	. .	. .	. .	1	. .	23	18	3	2	26	20	46
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	. .	. .	. .	1	1
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	7	8	1	3	8	11	19
56	47	23	31	8	7	1	2	. .	. .	33	54	908	1,276	72	91	908	1,367	2,347
59	50	35	44	9	7	1	1	. .	. .	11	9	253	305	11	18	264	323	587
56	47	23	31	8	7	1	2	. .	. .	33	54	908	1,276	72	91	980	1,367	2.347
115	97	58	75	17	14	2	3	. .	. .	44	63	1,161	1,581	83	109	1,244	1.690	2,934

TABLE No.

CLASS THREE—

Showing total Number of Deaths occurring in the State of Indiana,

CLASS THREE—LOCAL DISEASES.	GROUPED AGES AND															
	Under 1.		1 to 5.		5 to 10.		10 to 20.		20 to 30.		30 to 40.		40 to 50.		50 to 60.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
ORDER ONE—NERVOUS SYSTEM.																
Apoplexy	1	. .	. .	. .	1	. .	2	. .	1	1	3	4	5	10	17	11
Brain, abscess of	. .	. .	. .	1	. .	1	. .	. .	. .	. .	. .	. .	1	. .	1	. .
Brain, anæmia of	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	2	. .	1
Brain, compression of	. .	1	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Brain, congestion of	32	35	20	32	5	5	6	11	5	5	2	. .	3	2	9	2
Brain, disease of	2	2	5	1	. .	2	1	. .	. .	. .	1	. .	1	. .	1	1
Brain, effusion of	. .	. .	. .	1	. .	. .	. .	. .	1	1	. .	. .	. .	. .	1	. .
Brain fever	5	4	3	2	2	1	. .	. .	3	. .	. .	1	1	. .	1	. .
Brain, hemorrhage of	. .	. .	1	. .	. .	. .	. .	1	1	2	. .	. .	3	3	4	1
Brain, hyperæmia of	. .	. .	1	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Brain, inflammation of	16	11	12	10	3	3	1	1	1	1	. .	2	3	. .	1	4
Brain, paralysis of	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	. .	. .	1	. .	1	. .
Brain, sclerosis of	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Brain, softening of	. .	1	2	1	2	1	1	1	2	. .	5	1	4	2	7	7
Brain, tumor of	. .	. .	. .	. .	. .	. .	1	. .	. .	. .	. .	. .	. .	. .	. .	. .
Cerebritis	15	9	11	11	4	3	3	1	2	3	4	3	1	1	1	2
Chorea	. .	. .	. .	. .	. .	. .	. .	1	. .	. .	. .	. .	. .	. .	. .	. .
Convulsions	. .	. .	. .	. .	. .	. .	. .	. .	. .	2	. .	. .	. .	. .	. .	. .
Convulsions, infantile	112	84	34	31	1	5	1	. .	. .	. .	. .	. .	. .	. .	. .	. .
Epilepsy	. .	. .	2	2	. .	. .	2	6	5	4	4	3	4	6	1	2
Inflammation	1	. .	1	. .	. .	. .	. .	1	. .	. .	. .	. .	. .	. .	. .	. .
Insanity	. .	. .	. .	. .	. .	. .	. .	2	4	3	. .	6	3	1	3	1
Locomotor ataxia	1	1	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	. .
Mania hysteria	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	. .	. .
Meningitis	39	48	53	45	8	14	11	12	6	11	3	7	2	4	4	. .
Meningitis cerebral	6	4	9	11	2	3	1	1	1	1	. .	. .	2	. .	. .	. .
Meningitis spinal	7	2	2	2	. .	. .	2	1	. .	. .	. .	. .	. .	. .	2	. .
Muscular atrophy	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	. .
Myelitis	. .	. .	1	. .	. .	. .	. .	2	. .	. .	. .	1	1	. .	1	1
Neuralgia	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	2
Neurasthenia	. .	. .	. .	. .	. .	. .	. .	1	. .	1	. .	1	1	1	3	. .
Paralysis	2	2	4	3	1	. .	3	1	4	3	8	3	10	11	17	15
Spine, congestion of	1	. .	. .	. .	. .	. .	. .	1	. .	. .	1	1	. .	. .	. .	. .
Spine, curvature of	. .	. .	. .	1	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Spine, disease of	. .	1	4	2	. .	1	2	1	1	. .	. .	. .	. .	. .	2	. .
Spinal cord, sclerosis of	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	2
Tetanus	. .	4	2	1	2	. .	2	. .	3	. .	3	. .	1	. .	. .	. .
Thrombosis cerebral	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	. .	. .	1
Trismus nascentium	9	5	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Total	249	214	167	157	31	39	39	45	40	39	34	33	48	44	79	53
ORDER TWO—CIRCULATORY.																
Aneurism	. .	1	. .	. .	. .	. .	. .	. .	. .	. .	2	. .	1	. .	. .	3
Angina pectoris	. .	. .	. .	. .	. .	1	. .	. .	. .	1	1	1	1	2	. .	2
Aorta aneurism	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1
Aorta, rupture of	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	. .	. .	. .	. .	. .	. .
Aorta, stenosis of	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	. .	. .	. .
Arteritis	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Congestion	7	6	2	3	. .	. .	3	1	1	. .	. .	5	. .	3	1	1
Dyspnea	. .	1	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Embolism	. .	. .	. .	1	. .	. .	. .	. .	. .	1	2	1	. .	2	. .	1
Endocarditis	1	. .	. .	1	5	. .	1	. .	1	1	. .	1	2	1	. .	1
Heart, atrophy of	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	. .	. .	. .	. .	. .
Heart clot	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	2	1	. .
Heart, dilitation of	. .	. .	. .	. .	. .	. .	. .	1	. .	. .	. .	1	. .	1	1	. .

III—Continued.

LOCAL DISEASES.

Grouped Ages, Sex and Color, for the year ending, Sept. 30, 1884.

Sex.												Color.						Grand Total.
60 to 70.		70 to 80.		80 to 90.		90 to 100.		Over 100.		Not Rep'ted		White.		Color'd.		Total.		
M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
19	21	29	19	7	5	1	. .	. .	. .	9	2	95	72	. .	1	95	73	168
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	2	2	. .	. .	2	2	4
1	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	3	. .	. .	1	3	4
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	1	. .	. .	. . .	1	1
4	3	2	1	. .	. .	. .	. .	. .	. .	5	6	87	97	6	5	93	102	195
1	1	1	. .	. .	. .	. .	. .	. .	. .	. .	1	8	12	. .	. .	8	12	20
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	2	2	. .	. .	2	2	4
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	2	15	10	. .	. .	15	10	25
2	2	1	3	. .	. .	. .	1	. .	. .	. .	. .	11	12	1	1	12	13	25
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	. . .	. .	. .	1	. . .	1
3	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	39	32	1	. .	40	32	72
. .	. .	. .	. .	1	. .	. .	. .	. .	. .	. .	. .	3	1	. .	. .	3	1	4
. .	. .	. .	. .	. .	1	. .	. .	. .	. .	. .	. .	. . .	1	. .	. .	. . .	1	1
10	2	5	9	2	1	. .	. .	. .	. .	. .	2	38	28	2	. .	40	28	68
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	. .	2	. . .	. .	. .	2	. . .	2
. .	1	1	. .	. .	. .	. .	. .	. .	. .	. .	. .	42	31	. .	3	42	34	76
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	1	. .	. .	. . .	1	1
. .	1	1	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	3	. .	. .	1	3	4
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	2	. .	138	112	12	8	150	120	270
. .	1	1	. .	. .	. .	. .	. .	. .	. .	. .	1	19	22	. .	3	19	25	44
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	2	1	. .	. .	2	1	3
2	. .	1	1	. .	. .	. .	. .	. .	. .	2	. .	15	12	. .	2	15	14	29
1	. .	2	. .	. .	. .	. .	. .	. .	. .	. .	. .	5	1	. .	. .	5	1	6
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	1	. .	. .	. . .	1	1
2	2	1	. .	. .	. .	. .	. .	. .	. .	2	4	129	139	2	8	131	147	278
. .	. .	. .	. .	1	. .	. .	. .	. .	. .	1	1	23	20	. .	1	23	21	44
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	12	4	1	1	13	5	18
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	. . .	. .	. .	1	. . .	1
1	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	4	4	. .	. .	4	4	8
. .	. .	. .	. .	. .	2	. .	. .	. .	. .	. .	. .	. . .	4	. .	. .	. . .	4	4
1	1	. .	. .	. .	1	. .	. .	. .	. .	. .	. .	5	6	. .	. .	5	6	11
35	28	44	36	13	13	4	2	. .	. .	4	2	149	116	1	3	150	119	269
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	2	2	. .	. .	2	2	4
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	1	. .	. .	. . .	1	1
1	. .	1	. .	. .	. .	. .	. .	. .	. .	. .	. .	9	4	2	1	11	5	16
. .	. .	1	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	2	. .	. .	1	2	3
1	. .	. .	. .	. .	. .	. .	. .	. .	. .	2	. .	15	5	1	. .	16	5	21
1	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	2	. . .	. .	1	2	1	3
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	9	5	. .	. .	9	5	14
85	63	91	69	24	23	5	3	. .	. .	28	21	891	765	29	38	920	803	1,723
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	3	4	. .	. .	3	4	7
2	4	4	2	1	. .	1	. .	. .	. .	. .	. .	10	12	. .	1	10	13	23
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	1	. .	. .	. . .	1	1
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	1	. .	. .	. . .	1	1
. .	. .	1	. .	. .	. .	. .	. .	. .	. .	. .	. .	2	. . .	. .	. .	2	2	2
. .	. .	1	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	. . .	. .	. .	1	. . .	1
2	1	1	. .	. .	. .	. .	. .	. .	. .	. .	1	16	22	1	. .	17	22	39
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	1	. .	. .	. . .	1	1
1	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	2	6	1	. .	3	6	9
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	10	5	. .	. .	10	5	15
1	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	2	. . .	. .	. .	2	. . .	2
3	1	. .	. .	. .	. .	. .	. .	. .	. .	1	. .	5	3	. .	. .	5	3	8
1	. .	1	1	. .	. .	. .	. .	. .	. .	1	. .	4	4	. .	. .	4	4	8

TABLE NO. III—CLASS THREE—

CLASS THREE—LOCAL DISEASES.	GROUPED AGES AND															
	Under 1.		1 to 5.		5 to 10.		10 to 20.		20 to 30.		30 to 40.		40 to 50.		50 to 60.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
ORDER TWO—CIRCULATORY—Continued.																
Heart, disease of	2	5	1	. .	2	2	5	11	6	16	10	11	12	13	32	21
Heart, fatty of	. .	. .	. .	. .	. .	. .	. .	. .	1	. .	1	. .	. .	. .	2	4
Heart, hypertrophy of	1	. .	1	2	1	. .	2	3	1	1	1	. .	2	. .	1	2
Heart, neuralgia of	. .	. .	. .	. .	. .	. .	. .	. .	1	1	. .	. .	2	. .	1	2
Heart, paralysis of	1	. .	. .	. .	. .	. .	. .	1	1	. .	4	1	1	1	2	4
Heart, valvular disease of	. .	. .	. .	. .	3	. .	1	7	2	5	4	4	7	2	15	5
Hemorrhage	5	4	1	. .	. .	. .	2	. .	1	2	. .	1	1	2	3	2
Hydropericardium	. .	. .	1	. .	. .	1	1	1	. .	4	2	1	. .	. .	1	. .
Plericarditis	. .	. .	1	. .	. .	. .	2	1	1	1	1	2	1	. .	3	1
Phlebitis	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	. .	. .	1	. .	1	1
Total	17	17	7	7	11	4	17	26	16	35	29	29	32	29	64	50
ORDER THREE—RESPIRATORY.																
Apnea	. .	1	. .	. .	. .	. .	1	. .	. .	. .	. .	. .	. .	. .	. .	. .
Asthma	1	1	. .	. .	. .	. .	. .	. .	. .	. .	2	1	2	3	3	6
Bronchitis	54	29	27	24	5	2	3	7	9	8	4	3	5	5	9	6
Bronchitis, capillary	8	4	1	3	. .	3	1	1	. .	. .	. .	1	1	1	. .	1
Catarrh, capillary	1	. .	. .	. .	. .	. .	1	. .	. .	. .	. .	. .	. .	. .	. .	. .
Catarrh, intestinal	1	2	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Embolism, pulmonary	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1
Emphysema	. .	. .	. .	. .	. .	. .	1	. .	. .	. .	1	. .	. .	. .	. .	. .
Empyema	1	. .	. .	. .	. .	1	1	. .	. .	. .	. .	1	. .	. .	. .	. .
Epistaxis	. .	. .	. .	1	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Glottis, œdema of	. .	. .	. .	1	1	. .	. .	. .	. .	. .	. .	. .	1	. .	. .	. .
Hæmoptysis	. .	. .	. .	. .	. .	. .	. .	1	4	2	4	1	1	1	2	1
Hydrothorax	. .	. .	. .	. .	. .	. .	. .	. .	1	. .	. .	1	1	2	. .	2
Influenza	. .	. .	. .	. .	. .	. .	1	. .	. .	. .	. .	. .	. .	. .	. .	. .
Laryngitis	1	5	6	4	. .	. .	1	1	1	2	2	. .	. .	. .	1	. .
Lungs, abscess of	. .	. .	. .	. .	. .	. .	1	2	1	3	2	3	1	. .	. .	. .
Lungs, congestion of	17	17	3	7	2	3	3	2	2	2	4	4	2	1	5	4
Lungs, disease of	1	1	. .	1	. .	. .	. .	1	. .	. .	. .	1	. .	1	2	. .
Lungs, œdema of	1	. .	. .	1	. .	1	. .	1	. .	. .	. .	. .	1	. .	. .	. .
Pleurisy	. .	. .	. .	. .	. .	. .	1	. .	2	1	. .	1	1	. .	1	. .
Pneumonitis	93	79	79	48	16	20	36	47	58	41	35	36	53	45	49	46
Pneumonitis, broncho	1	1	. .	2	. .	. .	. .	. .	1	1	. .	. .	. .	. .	. .	. .
Pneumonitis, catarrhal	1	. .	1	1	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Pneumonitis, pleuro	. .	. .	1	1	. .	. .	. .	1	5	3	3	2	3	2	1	1
Pneumonitis, typhoid	1	1	. .	1	3	1	6	11	6	4	6	. .	4	3	2	3
Throat, ulceration of	1	1	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Tumor, thoracic	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1
Total	183	142	118	95	27	31	57	75	90	67	63	55	76	64	75	72
ORDER FOUR—DIGESTIVE.																
Abdomen, tumor of	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	. .	. .	. .	. .
Bile duct, occlusion of	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	. .	. .	. .
Bowels, congestion of	7	4	6	2	. .	. .	2	3	. .	3	1	1	. .	. .	1	1
Bowels, hemorrhage of	2	2	. .	. .	1	. .	. .	. .	3	. .	. .	2	. .	. .	1	1
Bowels, obstruction of	. .	2	2	1	3	2	2	1	4	. .	. .	3	1	2	2	1
Bowels, occlusion of	. .	. .	. .	. .	. .	. .	1	. .	. .	. .	. .	. .	. .	. .	. .	. .
Bowels, rupture of	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	. .	. .	. .	. .
Bowels, tuberculosis of	. .	. .	. .	. .	. .	. .	. .	1	. .	. .	. .	. .	. .	. .	. .	. .
Bowels, tumor of	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Bowels, ulceration of	. .	. .	. .	. .	. .	. .	. .	. .	1	1	. .	1	2	. .	. .	2
Cancrum oris	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	. .
Catarrh, enteric	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Colic	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	. .	. .	. .	. .	1	. .
Colitis	2	2	4	2	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Dyspepsia	4	2	3	5	. .	. .	. .	2	. .	. .	1	. .	2	1	4	. .
Enteritis	33	37	18	21	3	5	8	9	6	4	5	12	4	3	5	4
Gastritis	10	11	9	8	. .	1	2	. .	4	10	6	9	3	4	8	9
Gastro-enteritis	7	8	3	2	. .	. .	. .	. .	1	. .	1	1	2	2	1	1

Local Diseases—Continued.

Sex.												Color.						Grand Total.
60 to 70.		70 to 80.		80 to 90.		90 to 100.		Over 100.		Not Rep'ted		White.		Color'd'		Total.		
M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
31	25	18	29	8	3	..	..	..	..	3	6	124	138	6	4	130	142	272
3	1	1	4	..	..	..	..	..	..	..	..	8	9	..	..	8	9	17
..	1	..	1	1	..	..	..	..	..	..	..	11	10	..	..	11	10	21
..	1	1	..	..	..	..	..	..	..	..	..	5	4	..	..	5	4	9
3	1	5	2	2	..	..	..	..	..	..	..	19	9	..	1	19	10	29
12	7	10	9	..	2	..	..	..	..	2	1	48	39	8	3	56	42	98
1	..	1	..	..	..	..	..	..	..	..	..	13	11	2	..	15	11	26
..	..	3	4	1	1	..	..	..	..	..	..	9	12	..	..	9	12	21
1	1	1	..	..	..	..	..	..	..	1	..	12	5	..	1	12	6	18
..	..	..	1	..	..	..	..	..	..	..	..	2	2	..	..	2	2	4
61	43	48	53	13	7	1	..	..	..	8	8	306	298	18	10	324	308	632
..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	..	1	1	2
10	5	4	1	1	1	..	..	..	..	..	..	23	18	..	..	23	18	41
9	15	14	11	..	4	..	..	2	..	8	2	136	114	13	2	149	116	265
..	..	1	1	..	..	..	..	..	..	..	1	12	16	..	..	12	16	28
..	..	1	2	..	..	..	..	..	..	..	..	3	2	..	..	3	2	5
1	..	..	..	..	..	..	..	..	..	..	..	2	2	..	..	2	2	4
..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1	1
..	..	1	..	..	..	..	..	..	..	..	..	3	..	..	..	3	..	3
..	..	..	..	1	..	..	..	..	..	1	..	4	2	..	..	4	2	6
..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1	1
..	..	..	..	..	..	..	..	..	..	..	..	2	1	..	..	2	1	3
..	2	1	1	..	1	..	1	..	..	1	..	11	10	2	1	13	11	24
..	..	2	..	..	..	..	..	..	..	..	..	4	5	..	..	4	5	9
..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1	..	1
..	..	1	..	..	..	..	..	..	..	..	1	12	13	1	..	13	13	26
..	..	1	..	..	..	..	..	..	..	..	1	6	8	..	1	6	9	15
2	3	4	6	2	1	..	..	..	..	1	1	46	49	1	2	47	51	98
..	..	..	..	..	..	..	..	..	..	..	..	3	5	..	..	2	5	8
..	..	..	1	..	..	..	..	..	..	..	..	2	4	..	..	2	4	6
1	..	3	1	..	1	..	..	..	..	..	..	8	4	1	..	9	4	13
51	48	41	28	19	8	2	3	..	..	17	18	525	445	24	22	549	467	1,016
..	..	2	..	..	..	..	..	..	..	..	..	4	3	..	1	4	4	8
..	..	..	..	..	..	..	..	..	..	..	..	2	1	..	..	2	1	3
4	..	4	2	..	..	..	..	..	..	..	..	20	12	1	..	21	12	33
6	4	5	3	1	1	..	..	..	..	3	1	42	31	1	2	43	33	76
..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	..	1	1	2
..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1	1
84	77	85	57	24	17	2	4	2	..	31	25	873	750	44	31	917	781	1,698
..	..	..	1	..	..	..	..	..	..	..	..	..	2	..	..	..	2	2
..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1	..	1
1	..	1	2	..	1	..	..	..	..	1	..	20	17	..	..	20	17	37
..	..	1	..	..	1	..	..	..	..	..	..	8	6	..	..	8	6	14
2	1	2	1	2	..	..	..	..	..	1	1	21	15	..	..	21	15	36
..	1	..	1	..	..	..	..	..	..	..	..	1	2	..	..	1	2	3
..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1	1
..	1	..	..	..	..	..	..	..	..	..	..	..	1	..	1	..	2	2
..	..	..	1	..	..	..	..	..	..	..	..	..	1	..	..	..	1	1
..	1	2	..	..	..	..	..	..	..	..	..	4	5	1	..	5	5	10
..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1	..	1
..	..	..	1	..	..	..	..	..	..	..	..	..	1	..	..	..	1	1
..	2	..	..	..	1	..	..	..	..	..	..	1	4	..	..	1	4	5
..	..	..	..	..	..	..	..	..	..	..	..	6	4	..	..	6	4	10
..	1	2	2	..	..	..	..	..	..	1	..	16	13	1	..	17	13	30
4	6	9	1	1	3	1	..	..	..	3	3	97	103	3	5	100	108	208
10	6	..	8	2	..	..	..	..	..	2	1	55	66	1	1	56	67	123
3	1	4	2	1	..	..	..	..	..	..	..	23	17	..	..	23	17	40

TABLE No. III—Class Three—

CLASS THREE—LOCAL DISEASES.	Grouped Ages and															
	Under 1.		1 to 5.		5 to 10.		10 to 20.		20 to 30.		30 to 40.		40 to 50.		50 to 60.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Order Four—Digestive—Continued.																
Glossitis	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Hæmatemesis	. .	. .	. .	. .	. .	. .	. .	. .	1	. .	. .	. .	. .	. .	. .	. .
Hepatitis	3	1	3	. .	. .	. .	. .	. .	1	4	2	1	2	1	3	. .
Hernia	2	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	2
Hernia, strangulated	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	. .	1	2	1	2
Intestines, perforation of	. .	. .	. .	. .	. .	. .	1	. .	. .	. .	. .	. .	. .	. .	. .	. .
Intussusception	2	4	3	1	. .	2	3	. .	1	. .	1	. .	1	. .	3	. .
Jaundice	5	3	. .	. .	. .	. .	1	. .	1	. .	. .	2	1	2	1	2
Liver, abscess of	. .	. .	. .	. .	. .	. .	. .	1	1	1	2	2	. .	3	2	2
Liver, atrophy of	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	1	. .	1	. .	. .
Liver, cirrhosis	. .	. .	. .	. .	. .	. .	1	1	2	1	2	. .	5	2	10	3
Liver, congestion	1	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	. .	. .	. .	1	. .
Liver, disease of	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	1	. .
Liver, enlargement of	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Liver, fatty of	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	. .	. .
Liver, inflammation of	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	. .	. .
Liver, sclerosis of	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	. .	. .	. .	. .	2	. .
Œsophagus, contraction of	. .	. .	. .	1	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	. .
Peritonitis	5	. .	2	. .	1	1	7	8	6	29	4	14	2	3	3	7
Rectum, malig. stricture of	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	. .
Rectum, ulcer of.	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Rectum, occlusion of	1	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Splenitis	. .	. .	. .	. .	. .	. .	1	1	. .	1	. .	. .	. .	2	. .	1
Stomach, abscess of	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	. .
Stomach, catarrh of	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	. .	. .	. .
Stomach, congestion of	4	4	2	4	. .	. .	5	3	2	3	2	2	1	2	2	2
Stomach, disease of	1	. .	. .	. .	1	. .	. .	1	. .	1	. .	1	. .	. .	1	. .
Stomach, hemorrhage of	1	. .	. .	. .	. .	. .	. .	. .	1	. .	. .	. .	1	1	. .	. .
Stomach, neuralgia of	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Stomach, ulceration of	2	1	1	1	. .	. .	. .	. .	1	4	. .	. .	2	2	1	. .
Stomatitis	1	1	. .	1	. .	. .		1	. .	. .	. .	2	. .	. .	. .	. .
Stomatitis, mercurial	. .	1	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Throat, abscess of	1	. .	. .	. .	1	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Throat, disease of	. .	1	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Tonsilitis	4	. .	4	4	3	1	. .	1	1	. .	. .	. .	. .	. .	. .	. .
Tumor, parotid	. .	. .	1	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Tympanites	. .	. .	. .	. .	. .	. .	. .	. .	1	. .	. .	. .	. .	. .	. .	. .
Typhlitis	. .	1	. .	. .	. .	. .	. .	. .	1	2	. .	. .	. .	1	1	. .
Total	98	85	61	53	13	12	34	33	39	66	30	56	32	37	59	40
Order Five—Urinary.																
Albuminuria	. .	. .	. .	. .	. .	1	. .	1	1	2	. .	. .	. .	1	3	1
Bladder, atrophy of	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Bladder, disease of	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Bladder, paralysis of	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Calculi-biliary	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Calculus	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	. .	1	. .	1	. .
Cystitis	3	. .	. .	. .	1	. .	. .	1	. .	1	1	1	. .	. .	6	. .
Diabetes	1	. .	2	. .	3	3	1	4	4	4	4	. .	4	1	. .	. .
Gall duct, stenosis of	. .	. .	. .	. .	. .	. .	1	. .	. .	. .	. .	. .	. .	. .	. .	. .
Hæmaturia	. .	. .	. .	. .	. .	. .	. .	. .	1	. .	. .	. .	. .	. .	. .	. .
Hodgkins disease	. .	. .	. .	. .	1	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Ischuria remalis	. .	1	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Kidneys, abscess of	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	. .	. .	1	. .
Kidneys, carrhosis	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	. .	. .
Kidneys, disease of	1	. .	. .	. .	. .	. .	. .	[illegible]	. .	2	. .	1	. .	. .	2	. .
Melanosis	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	. .	. .	. .
Nephria	. .	. .	. .	1	. .	1	4	6	7	5	4	2	11	5	12	3
Nephritis	2	. .	3	2	3	5	3	5	4	5	5	3	5	4	6	2
Prostatis	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Pyelitis	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .

LOCAL DISEASES—Continued.

SEX.												COLOR.						Grand Total.
60 to 70.		70 to 80.		80 to 90.		90 to 100.		Over 100.		Not Rep'td.		White.		Col'rd.		Total.		
M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
. .	. .	. .	. .	. .	1	. .	. .	. .	. .	. .	. .	. . .	1	. .	. .	. . .	1	1
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	. . .	. .	. .	1	. . .	1
6	2	2	1	1	. .	. .	. .	. .	. .	1	. .	22	10	2	. .	24	10	34
. .	. .	. .	. .	3	. .	. .	. .	. .	. .	. .	. .	5	2	. .	. .	5	2	7
5	2	. .	1	1	. .	. .	. .	. .	. .	1	1	9	8	1	. .	10	8	18
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	. . .	. .	. .	1	. . .	1
. .	. .	. .	1	. .	. .	. .	. .	. .	. .	. .	. .	14	8	. .	. .	14	8	22
. .	3	4	1	. .	2	. .	. .	. .	. .	. .	. .	13	15	. .	. .	13	15	28
1	1	. .	1	. .	. .	. .	. .	. .	. .	. .	. .	6	10	. .	1	6	11	17
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	. .	2	2	. .	. .	2	2	4
5	1	2	2	1	. .	. .	. .	. .	. .	. .	. .	28	8	. .	2	28	10	38
. .	2	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	3	2	. .	. .	3	2	5
2	2	. .	. .	. .	. .	. .	. .	. .	. .	1	. .	4	3	. .	. .	4	3	7
1	1	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	1	. .	. .	1	1	2
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	1	. .	. .	. . .	1	1
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	1	. .	. .	. . .	1	1
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	2	1	. .	. .	2	1	3
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	1	. .	. .	1	1	2
3	4	4	5	3	1	1	. .	. .	. .	2	1	43	71	. .	2	43	73	116
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	. . .	. .	. .	1	. . .	1
1	. .	. .	. .	1	. .	. .	. .	. .	. .	. .	. .	2	. . .	. .	. .	2	. . .	2
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	. . .	. .	. .	1	. . .	1
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	1	6	. .	. .	1	6	7
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	. . .	. .	. .	1	. . .	1
. .	. .	. .	1	. .	. .	. .	. .	. .	. .	. .	. .	1	1	. .	. .	1	1	2
1	. .	2	4	1	. .	1	. .	. .	. .	. .	. .	22	24	1	. .	23	24	47
. .	. .	2	. .	. .	. .	. .	. .	. .	. .	. .	. .	5	3	. .	. .	5	3	8
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	3	1	. .	. .	3	1	4
. .	. .	. .	1	. .	. .	. .	. .	. .	. .	. .	. .	. . .	1	. .	. .	. . .	1	1
2	. .	4	1	1	. .	. .	. .	. .	. .	. .	. .	14	9	. .	. .	14	9	23
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	5	. .	. .	1	5	6
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	1	. .	. .	. . .	1	1
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	2	. . .	. .	. .	2	. . .	2
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	1	. .	. .	. . .	1	1
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	12	6	. .	. .	12	6	18
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	. . .	. .	. .	1	. . .	1
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	. . .	. .	. .	1	. . .	1
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	2	4	. .	. .	2	4	6
47	38	41	39	18	10	3	. .	. .	. .	14	8	479	465	10	12	489	477	966
2	. .	1	. .	. .	. .	. .	. .	. .	. .	. .	. .	7	6	. .	. .	7	6	13
. .	. .	1	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	. . .	. .	. .	1	. . .	1
. .	. .	1	1	1	. .	. .	. .	. .	. .	. .	. .	2	1	. .	. .	2	1	3
1	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	. . .	. .	. .	1	. . .	1
. .	1	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	1	. .	. .	. . .	1	1
. .	1	. .	. .	. .	. .	. .	. .	. .	. .	1	. .	4	1	. .	. .	4	1	5
10	1	20	2	3	1	1	. .	. .	. .	1	. .	46	7	. .	. .	46	7	53
5	. .	6	. .	2	1	. .	. .	. .	. .	. .	. .	31	13	1	. .	32	13	45
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	. . .	. .	. .	1	. . .	1
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	. . .	. .	. .	1	. . .	1
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	. . .	. .	. .	1	. . .	1
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	1	. .	. .	. . .	1	1
. .	1	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	2	. .	. .	1	2	3
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	1	. .	. .	. . .	1	1
2	1	4	1	1	. .	. .	. .	. .	. .	. .	. .	8	6	2	. .	10	6	16
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	. . .	. .	. .	1	. . .	1
17	11	19	. .	. .	2	. .	. .	. .	. .	2	1	74	37	2	. .	76	37	113
5	2	7	2	1	. .	. .	. .	. .	. .	3	. .	45	29	2	1	47	30	77
3	. .	. .	. .	1	. .	. .	. .	. .	. .	. .	. .	3	. . .	1	. .	4	. . .	4
1	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	. . .	. .	. .	1	. . .	1

TABLE No. III—Class Three—

CLASS THREE—LOCAL DISEASES.	Grouped Ages and															
	Under 1.		1 to 5.		5 to 10.		10 to 20.		20 to 30.		30 to 40.		40 to 50.		50 to 60.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Order Five—Urinary—Continued.																
Uræmic poisoning. .	1	3	1	1	. .	2	1	. .	1	3	1	3	1	1	5	2
Urethra, stricture of	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	. .	. .	. .	. .	. .
Urine, extravasation of	. .	. .	. .	. .	1	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Urine, retention of .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Urine, suppression of	1	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Total	9	4	6	4	9	12	10	18	18	22	17	11	23	13	36	8
Order Six—Generative.																
Menstruation, vicarious	. .	. .	. .	. .	. .	. .	. .	1	. .	. .	. .	. .	. .	. .	. .	. .
Metritis	. .	. .	. .	. .	. .	. .	. .	1	. .	7	. .	3	. .	1	. .	. .
Ovarian tumor . . .	. .	. .	. .	. .	. .	. .	. .	1	. .	1	. .	2	. .	1	. .	2
Ovaritis	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	. .	1	. .	. .	. .	. .
Uterine tumor	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	. .	. .	. .	1	. .	. .
Uterus, disease of . .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	. .	1	. .	1	. .	1
Varicocele	1	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Total	1	. .	. .	. .	. .	. .	. .	3	. .	11	. .	7	.	4	. .	3
Order Seven—Osseous and Locomotory.																
Caries of vertebra . .	. .	. .	. .	1	. .	. .	. .	. .	. .	1	. .	. .	. .	. .	. .	. .
Eyes, inflammation of	. .	. .	1	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Hip, disease of	. .	. .	. .	. .	. .	. .	1	. .	. .	. .	. .	. .	. .	. .	. .	. .
Necrosis	. .	. .	. .	. .	1	. .	1	. .	. .	. .	. .	. .	. .	. .	. .	. .
Periostitis	. .	. .	. .	1	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Sacroiliac, disease of	. .	. .	. .	. .	. .	. .	. .	1	. .	. .	. .	. .	. .	. .	. .	. .
Total	. .	. .	1	2	1	. .	2	1	. .	1	. .	. .	. .	. .	. .	. .
Order Eight—Integumentary.																
Abscess	1	3	. .	. .	. .	. .	. .	. .	5	2	2	. .	1	1	1	. .
Abscess, ear	. .	1	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Abscess, retropharyngeal	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	. .
Abscess, thigh	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	. .	. .	. .
Cellulitis	. .	1	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	. .	1	. .	. .
Erythema	1	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Muscles, atrophy of .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	. .
Ulcer, chronic	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	. .	. .	1	. .	1
Ulcer, leg	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Umbilicus, ulceration of	1	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Total	3	5	. .	. .	. .	. .	. .	. .	5	2	3	1	2	3	3	1
Order Nine—Miscellaneous.																
Dacrocystitis	. .	. .	. .	. .	1	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Osteitis	. .	. .	. .	. .	. .	. .	. .	1	. .	. .	. .	. .	. .	. .	. .	. .
Tumor, undefined . .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	. .	. .	. .	. .	. .	. .
Total	. .	. .	. .	. .	1	. .	. .	1	. .	1	. .	. .	. .	. .	. .	. .
Recapitulation.																
Nervous system	249	214	167	157	31	39	39	45	40	39	34	33	48	44	79	53
Circulatory	17	17	7	7	11	4	17	26	16	35	29	29	32	29	64	50
Respiratory	183	142	118	95	27	31	57	75	90	67	63	55	76	64	75	72
Digestive	98	85	61	53	13	12	34	33	39	66	30	56	32	37	59	40
Urinary	9	4	6	4	9	12	10	18	18	22	17	11	23	13	36	8
Generative organs . . .	1	. .	. .	. .	. .	. .	. .	3	. .	11	. .	7	. .	4	. .	3
Osseous and locomotory	. .	. .	1	2	1	. .	2	1	. .	1	. .	. .	. .	. .	. .	. .
Integumentary	3	5	. .	. .	. .	. .	. .	. .	5	2	3	1	2	3	3	1
Miscellaneous	. .	. .	. .	. .	1	. .	. .	1	. .	1	. .	. .	. .	. .	. .	. .
Grand total . . .	560	467	360	318	93	98	159	202	208	244	176	192	213	194	316	227

Local Diseases—Continued.

Sex.												Color.						Grand Total.
60 to 70.		70 to 80.		80 to 90.		90 to 100.		Over. 100.		Not Rep'td.		White.		Col'rd.		Total.		
M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
4	. .	4	2	2	1	. .	. .	. .	. .	2	1	23	19	. .	. .	23	19	42
. .	. .	2	. .	. .	. .	. .	. .	. .	. .	. .	. .	3	. . .	. .	. .	3	. . .	3
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	. . .	. .	. .	1	. . .	1
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	. . .	1	. .	. .	. . .	1	1
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	. . .	. .	. .	1	. . .	1
50	18	65	8	11	5	1	. .	. .	. .	9	3	256	125	8	1	264	126	390
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	1	. .	. .	. .	1	1
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	11	. .	1	. . .	12	12
. .	1	. .	. .	. .	1	. .	. .	. .	. .	. .	. .	. . .	9	. .	. .	. . .	9	9
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	2	. .	. .	. . .	2	2
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	2	. .	. .	. . .	2	2
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	4	. .	. .	. . .	4	4
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	. . .	. .	. .	1	. . .	1
. .	1	. .	. .	. .	1	. .	. .	. .	. .	. .	. .	1	29	. .	1	1	30	31
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	2	. .	. .	. . .	2	2
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	. . .	. .	. .	1	. . .	1
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	. . .	. .	. .	1	. . .	1
. .	1	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	2	1	. .	. .	2	1	3
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	1	. .	. .	. . .	1	1
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	1	. .	. .	. . .	1	1
. .	1	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	4	5	. .	. .	4	5	9
1	1	1	. .	. .	. .	. .	. .	. .	. .	. .	. .	12	7	. .	. .	12	7	19
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	1	. .	. .	. . .	1	1
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	. . .	. .	. .	1	. . .	1
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	. . .	. .	. .	1	. . .	1
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	3	. .	. .	. . .	3	3
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	. . .	. .	. .	1	. . .	1
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	. . .	. .	. .	1	. . .	1
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	2	. .	. .	1	2	3
.	. .	1	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	. . .	. .	. .	1	. . .	1
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	. . .	. .	. .	1	. . .	1
1	1	2	. .	. .	. .	. .	. .	. .	. .	. .	. .	19	13	. .	. .	19	13	32
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	. . .	. .	. .	1	. . .	1
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	1	. .	. .	. . .	1	1
1	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	1	. .	. .	1	1	2
1	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	2	. .	. .	2	2	4
85	63	91	69	24	23	5	3	. .	. .	28	21	887	769	29	38	916	807	1,723
61	43	48	53	13	7	1	. .	. .	. .	8	8	306	298	18	10	324	308	632
84	77	85	57	24	17	2	4	2	. .	31	25	873	750	44	31	917	781	1,698
47	38	41	39	18	10	3	. .	. .	. .	14	8	479	465	10	12	489	477	966
50	18	65	8	11	5	1	. .	. .	. .	9	3	256	125	8	1	264	126	390
. .	1	. .	. .	. .	1	. .	. .	. .	. .	. .	. .	1	29	. .	1	1	30	31
. .	1	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	4	5	. .	. .	4	5	9
1	1	2	. .	. .	. .	. .	. .	. .	. .	. .	. .	19	13	. .	. .	19	13	32
1	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	2	2	. .	. .	2	2	4
329	242	332	226	90	63	12	7	2	. .	90	65	2,827	2,456	109	93	2,936	2,549	5,485

TABLE

CLASS FOUR—

Showing total number of Deaths occurring in the State of Indiana,

CLASS FOUR—DEVELOPMENTAL DISEASES.	Under 1.		1 to 5.		5 to 10.		10 to 20.		20 to 30.		30 to 40.		40 to 50.	
	M.	F.	M.	F.	M.	F	M.	F.	M.	F.	M.	F.	M.	F.
ORDER ONE—CHILDREN.														
Atelectasis	8	2	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Birth, injuries	5	5	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Birth, premature	128	108	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Congenital causes	3	2	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Craniotomy	. .	2	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Cyanosis	36	30	1	1	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Debility, infantile	13	18	3	2	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Dentition	8	4	3	2	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Laryngismus stridulus	. .	. .	1	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Malformation	7	7	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Malnutrition	6	5	. .	1	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Pressure on cord	1	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Prolapsis, funis	1	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Spina bifida	7	9	. .	1	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Strangulation	. .	2	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Umbilical cord, disease of	. .	2	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Umbilical fistula	1	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Umbilical hemorrhage	4	4	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Total	228	200	8	7	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
ORDER TWO—WOMEN.														
Amenorrhœa	. .	. .	. .	. .	. .	. .	. .	1	. .	. .	. .	. .	. .	. .
Child-birth, accident at	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	3	. .	1
Climacteria	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1
Nursing sore mouth	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1
Ovarian, disease	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1
Paturition	. .	. .	. .	. .	. .	. .	. .	2	. .	10	. .	7	. .	3
Pelvic, abscess	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	. .	1
Pelvic, cellulitis	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	. .	. .
Placenta previa	. .	. .	. .	. .	. .	. .	. .	1	. .	1	. .	4	. .	. .
Phlegmacia dolens	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Post-partum, hemorrhage	. .	. .	. .	. .	. .	. .	. .	. .	. .	5	. .	5	. .	4
Puerperal, eclampsia	. .	. .	. .	. .	. .	. .	. .	19	. .	27	. .	9	. .	1
Puerperal, hemorrhage	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	. .	1	. .	. .
Puerperal, mania	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1
Uterine, hemorrhage of	. .	. .	. .	. .	. .	. .	. .	. .	. .	6	. .	5	. .	1
Uterus, rupture ef	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1
Uterus, ulcer of	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1
Total	. .	. .	. .	. .	. .	. .	. .	23	. .	51	. .	36	. .	17
ORDER THREE—OLD AGE.														
Old age	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Total	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
ORDER FOUR—NUTRITION.														
Asthenia	1	3	1	. .	. .	. .	1	. .	. .	. .	. .	. .	. .	2
Debility	1	2	. .	. .	. .	. .	. .	1	. .	3	. .	3	2	2
Exhaustion	2	1	. .	. .	. .	. .	2	3	. .	. .	1	3	. .	1
Marasmus	18	17	2	3	. .	1	. .	1	. .	1	1	1	1	1
Nutrition, imperfect	. .	2	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Total	22	25	3	3	. .	1	3	5	. .	4	2	7	3	6
Children	228	200	8	7	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Women	. .	. .	. .	. .	. .	. .	. .	23	. .	51	. .	36	. .	17
Old age	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Nutrition	22	25	3	3	. .	1	3	5	. .	4	2	7	3	6
Grand Total	250	225	11	10	. .	1	3	28	. .	55	2	43	3	23

No. III—Continued.

DEVELOPMENTAL DISEASES.

Grouped Ages, Sex and Color, for the year ending September 30, 1884.

50 to 60.		60 to 70.		70 to 80.		80 to 90.		90 to 100.		Over 100.		Not Rep'td.		White.		Col'rd.		Total.		Grand Total.
M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	7	2	1	. .	8	2	10
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	4	5	1	. .	5	5	10
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	124	101	4	7	128	108	236
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	3	2	. .	. .	3	2	5
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	2	. .	. .	. .	2	2
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	37	31	. .	. .	37	31	68
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	15	20	1	. .	16	20	36
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	11	6	. .	. .	11	6	17
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	. .	. .	. .	1	. .	1
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	7	7	. .	. .	7	7	14
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	6	6	. .	. .	6	6	12
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	. .	. .	. .	1	. .	1
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. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	7	10	. .	. .	7	10	17
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	2	. .	. .	. .	2	2
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	2	. .	. .	. .	2	2
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	. .	. .	. .	1	. .	1
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	4	4	. .	. .	4	4	8
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	229	200	7	7	236	207	443
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	. .	. .	. .	1	1
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	4	. .	. .	. .	4	4
. .	1	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	2	. .	. .	. .	2	2
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	. .	. .	. .	1	1
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	. .	. .	. .	1	1
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	. .	22	. .	1	. .	23	23
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	2	. .	. .	. .	2	2
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	. .	. .	. .	1	1
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	6	. .	. .	. .	6	6
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. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	14	. .	. .	. .	14	14
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	3	. .	58	. .	1	. .	59	59
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	. .	3	. .	. .	. .	3	3
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	. .	. .	. .	1	1
. .	2	. .	. .	. .	1	. .	. .	. .	. .	. .	. .	. .	. .	. .	15	. .	. .	. .	15	15
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	. .	. .	. .	1	1
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	. .	. .	. .	1	1
. .	3	. .	. .	. .	1	. .	. .	. .	. .	. .	. .	. .	5	. .	134	. .	2	. .	136	136
. .	1	8	2	61	56	65	80	20	13	2	2	6	10	157	158	5	6	162	164	326
. .	1	8	2	61	56	65	80	20	13	2	2	6	10	157	158	5	6	162	164	326
. .	. .	3	4	6	8	3	7	. .	1	. .	. .	. .	1	14	25	1	1	15	26	41
5	1	10	16	26	11	9	8	. .	6	. .	1	4	1	54	53	3	2	57	55	112
. .	2	7	. .	1	6	1	2	. .	. .	. .	. .	1	1	14	19	1	. .	15	19	34
. .	. .	1	1	3	1	3	6	. .	. .	. .	. .	2	2	29	33	2	2	31	35	66
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	2	. .	. .	. .	2	2
5	3	21	21	36	26	16	23	. .	7	. .	1	7	5	111	132	7	5	118	137	255
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	229	200	7	7	236	207	443
. .	3	. .	. .	. .	1	. .	. .	. .	. .	. .	. .	. .	5	. .	134	. .	2	. .	136	136
. .	1	8	2	61	56	65	80	20	13	2	2	6	10	157	158	5	6	162	164	336
5	3	21	21	36	26	16	23	. .	7	. .	1	7	5	111	132	7	5	118	137	255
5	7	29	23	97	83	81	103	20	20	2	3	13	20	497	624	19	20	516	644	1,160

TABLE

CLASS FIVE—VIOLENCE,

Showing total number of Deaths occurring in the State of Indiana,

CLASS FIVE—VIOLENCE.	GROUPED AGES															
	Under 1		1 to 5		5 to 10		10 to 20		20 to 30		30 to 40		40 to 50		50 to 60	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
ORDER ONE—ACCIDENTS AND NEGLIGENCE.																
Abortion								4		3		10		2		
Accident	5	4	6	5	3		15	5	24	5	15	2	7	2	9	1
Accident, railroad					1		11	3	33		17		10	3	12	
Amputation of leg													1			
Asphyxia	15	16	1			1	3		1		1					
Blow on the head					1					1						
Brain, concussion of		2				1			4				1			
Burn	3	2	5	4		4	1	4		7				2		2
Buzz saw							1		1		1					
Caught in machinery							1									
Choked by a pea			1													
Chloroform								1								
Coal mine							1		2						1	
Concussion									1							
Crushed by saw-log							1						1			
Cut jug. vein with ax																
Drinking concentr'd lye			1													
Drowned	1		3	2	6		12	2	12	2	4	1	4		3	
Explosion, boiler									2		3					
Explosion, cannon													1			
Explosion, dynamite							1		2				2			
Explosion, g'npo'der											1					
Explosion, lo'motive																
Exposure to cold	2												1		1	
Fall			1	2			2		2		1					
Falling derrick											1		1			
Falling tree									2							
Falling wall											1					
Fracture					1								1			
Fracture, arm												1				
Fracture, femur													1			2
Fracture, fibula																
Fracture, hip																
Fracture, leg																
Fracture, neck																1
Fracture, skull	1		1				1		1		3				3	
Fracture, spine		1					1		1					2		
Gun-shot wound		1		1	3		6		8		5		2		2	
Hanging							1									
Hemorrhage from wound									1							
Injury															1	
Kicked by a horse					2		2				1		1			
Kicked by a mule							1		1					1		
Killed by a bull													1			
Killed by a reaper									1							
Lightning									3		1		1		1	
Pistol shot							2	1	2		2	1	1			
Poison	3	2	1						2	3		1				1
Poison, arsenic				1												1
Poison, greens																
Poison, lobelia	1															
Poison, morphine	2												1			1
Poison, opium	2									1	1		1		1	
Poison, strychnia			2													
Poison, white lead									2		1					
Powder burn									1							
Puncture, wrist by needle												1				
Removal of tumor																1
Runaway team													1			
Run over by dray																

No. III.

ACCIDENTS AND NEGLIGENCE.

Grouped Ages, Sex and Color, for the year ending Sept. 30, 1884.

AND SEX.												COLOR.						Grand Total.
60 to 70		70 to 80		80 to 90		90 to 100		Over 100		Not Rep'ted		White.		Color'd		Total.		
M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
..	..	..	..	..	..	..	..	..	..	..	4	...	23	..	..	...	23	23
9	1	5	2	1	4	1	..	1	..	5	..	106	29	..	2	106	31	137
8	..	4	..	1	..	..	..	..	..	6	..	101	5	2	1	103	6	109
..	..	..	..	..	..	..	..	..	..	..	..	...	...	1	..	1	...	1
..	..	..	1	..	..	..	..	..	..	..	..	21	18	..	..	21	18	39
..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	..	1	1	2
..	..	1	1	..	..	..	..	..	..	2	..	7	4	1	..	8	4	12
..	..	..	2	..	1	..	1	..	1	1	..	9	30	1	..	10	30	40
..	..	..	..	..	..	..	..	..	..	..	..	3	...	..	..	3	...	3
..	..	..	..	..	..	..	..	..	..	..	..	1	...	..	..	1	...	1
..	..	..	..	..	..	..	..	..	..	..	..	1	...	..	..	1	...	1
..	..	..	..	..	..	..	..	..	..	..	..	...	1	..	..	...	1	1
..	..	..	..	..	..	..	..	..	..	..	..	4	...	..	..	4	...	4
..	..	..	..	..	..	..	..	..	..	..	..	1	...	..	..	1	...	1
..	..	..	..	..	..	..	..	..	..	..	..	2	...	..	..	2	...	2
..	..	..	..	..	..	..	..	..	..	..	..	1	...	..	..	1	...	1
..	..	..	..	..	..	..	..	..	..	..	..	1	...	..	..	1	...	1
..	..	..	..	..	..	..	..	..	..	2	2	40	6	8	3	48	9	57
1	..	..	..	..	..	..	..	..	..	..	..	5	...	..	..	5	...	5
..	..	..	..	..	..	..	..	..	..	..	..	...	...	1	..	1	...	1
..	..	..	..	..	..	..	..	..	..	..	..	5	...	..	..	5	...	5
..	..	..	..	..	..	..	..	..	..	..	..	1	...	..	..	1	...	1
..	..	..	..	..	..	..	..	..	..	1	..	1	...	..	..	1	...	1
..	..	..	..	..	..	..	..	..	..	..	..	3	...	1	..	4	...	4
..	..	2	2	..	..	..	..	..	..	..	..	8	4	..	..	8	4	12
..	..	..	..	..	..	..	..	..	..	..	..	2	...	..	..	2	.	2
..	..	..	..	..	..	..	..	..	..	..	..	2	...	..	..	2	...	2
..	..	..	..	..	..	..	..	..	..	..	..	1	...	..	..	1	...	1
..	..	..	..	..	..	..	..	..	..	..	..	2	...	..	..	2	...	2
..	..	..	..	..	..	..	..	..	..	..	..	...	1	..	..	...	1	1
..	1	..	1	..	1	..	..	..	..	..	..	1	5	..	..	1	5	6
1	..	..	..	..	..	..	..	..	..	..	..	1	...	..	..	1	...	1
..	1	..	..	..	..	..	..	..	..	..	..	...	1	..	..	...	1	1
..	..	..	1	..	..	..	..	..	..	..	..	...	1	..	..	...	1	1
..	1	..	1	..	..	..	..	..	..	..	..	...	3	..	..	...	3	3
..	..	..	..	..	..	..	..	..	..	..	..	10	...	..	..	10	...	10
..	1	2	..	..	..	..	..	..	..	..	..	2	4	2	..	4	4	8
1	..	..	..	..	..	..	..	..	..	1	..	28	2	..	..	28	2	30
..	..	..	..	..	..	..	..	..	..	..	..	1	...	..	..	1	...	1
..	..	..	..	..	..	..	..	..	..	..	..	1	...	..	..	1	...	1
..	..	1	..	..	..	..	..	..	..	..	..	2	...	..	..	2	...	2
..	..	..	..	..	..	..	..	..	..	..	..	6	...	..	..	6	...	6
..	..	..	..	..	..	..	..	..	..	..	..	2	1	..	..	2	1	3
..	..	..	..	..	..	..	..	..	..	..	..	1	...	..	..	1	...	1
..	..	..	..	..	..	..	..	..	..	..	..	1	...	..	..	1	...	1
..	..	..	..	..	..	..	..	..	..	1	..	7	...	..	..	7	...	7
..	..	..	..	..	..	..	..	..	..	..	..	7	2	..	..	7	2	9
2	..	..	..	..	..	..	..	..	..	1	1	9	8	..	..	9	8	17
..	..	..	..	..	..	..	..	..	..	..	..	...	2	..	..	...	2	2
..	1	..	..	..	..	..	..	..	..	..	..	...	1	..	..	...	1	1
..	..	..	..	..	..	..	..	..	..	..	..	1	...	..	..	1	...	1
..	..	1	..	..	..	..	..	..	..	..	..	4	1	..	..	4	1	5
..	2	..	..	..	..	..	..	..	..	..	..	5	3	..	..	5	3	8
..	..	..	..	..	..	..	..	..	..	..	..	2	...	..	..	2	...	2
..	..	..	..	..	..	..	..	..	..	..	..	3	...	..	..	3	...	3
..	..	..	..	..	..	..	..	..	..	..	..	1	...	..	..	1	...	1
..	..	..	..	..	..	..	..	..	..	..	..	...	1	..	..	...	1	1
..	..	..	..	..	..	..	..	..	..	..	..	...	1	..	..	...	1	1
..	..	..	..	..	..	..	..	..	..	..	..	1	...	..	..	1	...	1
..	..	..	..	1	..	..	..	..	..	..	..	1	...	..	..	1	...	1

TABLE NO. III—CLASS FIVE—VIOLENCE,

CLASS FIVE—VIOLENCE.	GROUPED AGES															
	Under 1		1 to 5		5 to 10		10 to 20		20 to 30		30 to 40		40 to 50		50 to 60	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
ORDER ONE—ACCIDENTS, ETC—Continued.																
Scald	2	1	4	2	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Shock	. .	1	. .	. .	. .	. .	. .	. .	. .	2	. .	. .	. .	. .	. .	. .
Shock f'm a'put'tion	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	. .	1	. .
Shock f'm operation	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Shot	. .	. .	. .	. .	. .	. .	1	. .	1	. .	. .	. .	1	. .	. .	. .
Shot by a policeman	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	. .	. .	. .
Spine, concussion of	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	. .	. .	. .	1	. .
Spine, injury of	. .	. .	. .	. .	. .	. .	1	. .	. .	. .	1	. .	. .	. .	. .	. .
Strangulation	. .	1	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Struck by a stone	. .	. .	1	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Suffocated by mother	. .	1	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Sunstroke	. .	. .	. .	. .	. .	. .	. .	. .	1	1	. .	. .	1	. .	. .	. .
Thrown f'm carriage	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Thrown from horse	. .	. .	. .	. .	. .	. .	. .	. .	1	. .	1	. .	. .	. .	. .	. .
Thrown from mule	. .	. .	. .	. .	. .	. .	. .	. .	1	. .	1	. .	. .	. .	. .	. .
Violence	. .	1	. .	. .	. .	. .	1	. .	1	. .	. .	. .	. .	. .	. .	. .
Wound on head	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	. .
Total	37	33	27	17	17	6	66	20	114	25	63	17	44	12	37	10
ORDER TWO—HOMICIDE.																
Homicide	. .	. .	. .	. .	. .	. .	. .	. .	2	1	2	1	4	. .	1	. .
Stabbed	. .	. .	. .	. .	. .	. .	. .	. .	2	. .	. .	. .	. .	. .	. .	. .
Total	. .	. .	. .	. .	. .	. .	. .	. .	4	1	2	1	4	. .	1	. .
ORDER THREE—SUICIDE.																
Suicide	. .	. .	. .	. .	. .	. .	4	3	12	4	4	4	10	2	3	. .
Suicide, arsenic	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	2	. .
Suicide, corrosive sub	. .	. .	. .	. .	. .	. .	. .	. .	1	. .	. .	. .	. .	. .	. .	. .
Cutting throat	. .	. .	. .	. .	. .	. .	. .	. .	1	. .	1	. .	1	. .	1	1
Drowning	. .	. .	. .	. .	. .	. .	. .	1	. .	. .	. .	. .	. .	2	1	2
Gunshot	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	. .	. .	. .	1	. .
Hanging	. .	. .	. .	. .	. .	. .	. .	. .	4	. .	2	. .	4	. .	3	1
Hydrate of chloral	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	. .	. .	. .
Laudanum	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	. .
Morphine	. .	. .	. .	. .	. .	. .	. .	. .	. .	2	4	. .	1	. .	. .	. .
Opium	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	. .	2	. .	2	. .
Paris Green	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	. .	. .	. .	. .
Pistol shot	. .	. .	. .	. .	. .	. .	. .	. .	4	1	3	. .	2	. .	3	. .
Poison	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	. .	. .	1	. .	. .	. .
Rough on Rats	. .	. .	. .	. .	. .	. .	. .	1	. .	. .	. .	. .	. .	. .	. .	. .
Severing jug'lar vein	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Strangulation	. .	. .	. .	. .	. .	. .	. .	. .	1	. .	. .	. .	. .	. .	. .	. .
Total	. .	. .	. .	. .	. .	. .	4	5	23	8	16	5	22	4	17	4
ORDER FOUR—UNKNOWN.																
Unknown	88	64	8	11	3	1	4	4	10	8	5	10	9	4	8	5
Accidents and Negligence	37	33	27	17	17	6	66	20	114	25	63	17	44	12	37	10
Homicide	. .	. .	. .	. .	. .	. .	. .	. .	4	1	2	1	4	. .	1	. .
Suicide	. .	. .	. .	. .	. .	. .	4	5	23	8	16	5	22	4	17	4
Unknown	88	64	8	11	3	1	4	4	10	8	5	10	9	4	8	5
Total	125	97	35	28	20	7	74	29	151	42	86	33	79	20	63	19
RECAPITULATION.																
Zymotic diseases	642	559	430	418	159	137	146	211	174	232	82	127	59	85	72	55
Constitutional diseases	64	67	53	84	38	31	77	206	291	467	178	255	154	190	143	137
Local diseases	560	467	360	318	93	98	159	202	208	244	176	192	213	194	316	227
Developm'tal diseases	250	225	11	10	. .	1	3	28	. .	55	2	43	3	23	5	7
Violence	125	97	35	28	20	7	74	29	151	42	86	33	79	20	63	19
Total deaths from all causes*	1641	1415	889	858	310	274	459	776	824	1040	524	650	508	512	599	444

* Exclusive of "still-births."

ACCIDENTS AND NEGLIGENCE—Continued.

and Sex.												Color.						Grand Total.
60 to 70		70 to 80		80 to 90		90 to 100		Over 100		Not Rep'ted		White.		Color'd		Total.		
M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	6	3	. .	. .	6	3	9
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	3	. .	. .	. . .	3	3
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	2	. . .	. .	. .	2	. . .	2
. .	2	1	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	2	. .	. .	1	2	3
. .	. .	. .	. .	1	. .	. .	. .	. .	. .	. .	. .	4	. . .	. .	. .	4	. . .	4
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	. . .	. .	. .	1	. . .	1
1	. .	1	. .	. .	. .	. .	. .	. .	. .	. .	. .	4	. . .	. .	. .	4	. . .	4
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	2	. . .	. .	. .	2	. . .	2
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	1	. .	. .	. . .	1	1
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	. . .	. .	. .	1	. . .	1
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	1	. .	. .	. . .	1	1
. .	. .	1	. .	. .	. .	. .	. .	. .	. .	. .	. .	3	1	. .	. .	3	1	4
. .	. .	1	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	. . .	. .	. .	1	. . .	1
1	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	2	. . .	1	. .	3	. . .	3
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	2	. . .	. .	. .	2	. . .	2
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	2	1	. .	. .	2	1	3
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	. . .	. .	. .	. . .	1	1
25	10	20	11	4	6	1	1	1	1	20	7	458	170	18	6	476	176	652
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	8	2	1	. .	9	2	11
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	2	. . .	. .	. .	2	. . .	2
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	10	2	1	. .	11	2	13
2	. .	3	1	. .	. .	. .	. .	. .	. .	. .	. .	38	14	. .	. .	38	14	52
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	2	. . .	. .	. .	2	. . .	2
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	. . .	. .	. .	1	. . .	1
1	. .	. .	1	. .	. .	. .	. .	. .	. .	. .	. .	5	1	. .	1	5	2	7
1	. .	. .	1	. .	. .	. .	. .	. .	. .	. .	. .	2	6	. .	. .	2	6	8
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	2	. . .	. .	. .	2	. . .	2
2	1	3	. .	. .	. .	. .	. .	. .	. .	. .	. .	18	2	. .	. .	18	2	20
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	. . .	. .	. .	1	. . .	1
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	. . .	. .	. .	1	. . .	1
1	. .	. .	. .	1	. .	. .	. .	. .	. .	. .	. .	6	2	1	. .	7	2	9
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	5	. . .	. .	. .	5	. . .	5
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	1	. .	. .	. . .	1	1
. .	. .	1	. .	. .	. .	. .	. .	. .	. .	. .	. .	13	1	. .	. .	13	1	14
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	1	. .	. .	1	1	2
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. . .	1	. .	. .	. . .	1	1
. .	. .	. .	. .	1	. .	. .	. .	. .	. .	. .	. .	1	. . .	. .	. .	1	. . .	1
. .	. .	. .	. .	1	. .	. .	. .	. .	. .	. .	. .	2	. . .	. .	. .	2	. . .	2
7	1	7	3	3	. .	. .	. .	. .	. .	. .	. .	98	29	1	1	99	30	129
8	7	9	7	4	1	1	. .	. .	. .	29	10	183	129	3	3	186	132	318
25	10	20	11	4	6	1	1	1	1	20	7	458	170	18	6	476	176	652
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	10	2	1	. .	11	2	13
7	1	7	3	3	. .	. .	. .	. .	. .	. .	. .	98	29	1	1	99	30	129
8	7	9	7	4	1	1	. .	. .	. .	29	10	183	129	3	3	186	132	318
40	18	36	21	11	7	2	1	1	1	49	17	749	330	23	10	772	340	1112
81	64	52	51	19	16	1	1	. .	1	36	40	1,886	1,922	67	75	1,953	1,997	3,950
115	97	58	75	17	14	2	3	. .	. .	44	63	1,161	1,581	83	109	1,244	1,690	2,934
329	242	332	226	90	63	12	7	2	. .	90	65	2,831	2,452	109	93	2,936	2,549	5,485
29	23	97	83	81	103	20	20	2	3	13	20	497	624	19	20	516	644	1,160
40	18	36	21	11	7	2	1	1	1	49	17	749	330	23	10	772	340	1,112
594	444	575	456	218	203	37	32	5	5	232	205	7,124	6,909	301	307	7,421	7,220	14,641

TABLE No. IV.

CLASS ONE—ZYMOTIC DISEASES.

Showing total number of Deaths in the State of Indiana, arranged in Classes, Order, Sex, Color, Nationality and Social Relations, for the year ending September 30, 1884.

CLASS ONE—ZYMOTIC.	TOTAL.		COLOR.				NATIONALITY.						Single.	Married.	Widower.	Widow.	Not Reported.	Whole Number.
	Male.	Female.	White.		Black.		American.		Foreign.		Not Rept'd.							
			M.	F.	M.	F.	M.	F.	M.	F.	M.	F.						
ORDER ONE—MIASMATIC.																		
Anthrax	3	2	3	2	. .	. .	3	1	. .	1	. .	. .	. .	4	1	. .	. .	5
Choleraic diarrhœa	1	3	1	3	. .	. .	1	3	. .	. .	. .	. .	3	1	. .	. .	. .	4
Cholera infantum	358	293	348	285	10	8	348	285	4	7	6	1	643	2	. .	. .	6	651
Cholera morbus	36	14	35	13	1	1	31	14	4	. .	1	. .	29	16	3	2	. .	50
Congestive chill	20	23	20	22	. .	1	18	20	1	3	1	. .	23	13	2	4	1	43
Croup	105	80	104	78	1	2	101	79	2	. .	2	1	183	. .	. .	1	1	185
Diarrhœa	59	43	58	43	1	. .	54	42	5	1	. .	. .	76	10	8	8	. .	102
Diarrhœa, chronic	12	12	12	11	. .	1	12	10	. .	1	. .	1	16	5	. .	3	. .	24
Diphtheria	101	138	101	138	. .	. .	98	131	2	6	1	1	233	5	. .	1	. .	239
Dysentery	99	95	99	93	. .	2	89	88	7	7	3	. .	119	48	6	20	1	194
Dysentery, chronic	7	11	7	11	. .	. .	7	10	. .	1	. .	. .	11	6	. .	1	. .	18
Entero colitis	33	33	33	32	. .	1	33	33	. .	. .	. .	. .	58	6	. .	2	. .	66
Erysipelas	37	38	36	38	1	. .	34	32	3	3	. .	3	37	26	3	8	1	75
Fever, catarrhal	15	16	15	16	. .	. .	14	16	. .	. .	1	. .	24	6	1	. .	. .	31
Fever, cerebro spinal	65	82	62	81	3	1	61	80	3	. .	1	2	130	15	. .	. .	2	147
Fever, congestive	11	13	10	13	1	. .	11	9	. .	3	. .	1	10	12	1	1	. .	24
Fever, continued	3	2	3	2	. .	. .	3	2	. .	. .	. .	. .	1	3	1	. .	. .	5
Fever, intermittent	3	5	3	5	. .	. .	2	5	1	. .	. .	. .	3	2	2	1	. .	8
Fever, malarial	56	83	55	75	1	8	48	78	8	4	. .	1	92	36	2	6	3	139
Fever, pernicious	15	15	14	14	1	1	11	12	4	3	. .	. .	10	15	1	4	. .	30
Fever, puerperal	. .	69	. .	67	. .	2	. .	60	. .	3	. .	6	2	66	. .	1	. .	69
Fever, remittent	16	26	16	24	. .	2	15	26	1	. .	. .	. .	23	14	. .	2	3	42
Fever, scarlet	93	85	93	84	. .	1	72	64	18	19	3	2	172	5	. .	1	. .	178
Fever, typhoid	316	280	302	274	14	6	288	257	21	19	7	4	347	213	11	19	6	596
Fever, typho-malarial	74	83	73	79	1	4	66	79	8	2	. .	2	95	53	3	3	3	157

Flux	6	4	6	4	. .	. .	5	4	1	. .	. .	. .	5	4	1	. .	. .	10
Gangrene	16	17	16	17	. .	. .	13	12	3	5	. .	. .	4	13	8	7	1	33
Measles	58	66	51	60	7	6	55	66	3	. .	. .	. .	107	17	. .	. .	. .	124
Milk sickness	3	1	3	1	. .	. .	3	1	. .	. .	. .	. .	1	3	. .	. .	. .	4
Parotitis	. .	1	. .	1	. .	. .	. .	. .	. .	1	. .	. .	1	. .	. .	. .	. .	1
Pertusses	60	92	54	89	6	3	57	92	. .	. .	3	. .	152	. .	. .	. .	. .	152
Puerperal Metritis	. .	1	. .	1	. .	. .	. .	1	. .	. .	. .	. .	. .	1	. .	. .	. .	1
Puerperal Peritonitis	. .	25	. .	24	. .	1	. .	23	. .	2	. .	. .	1	24	. .	. .	. .	25
Puerperal Septæmia	. .	28	. .	27	. .	1	. .	26	. .	2	. .	. .	. .	28	. .	. .	. .	28
Pyæmia	12	9	12	9	. .	. .	12	8	. .	1	. .	. .	. .	8	11	. .	1	21
Rotheln	1	. .	1	. .	. .	. .	1	. .	. .	. .	. .	. .	1	. .	. .	. .	. .	1
Septæmia	24	41	24	38	. .	3	22	37	2	3	. .	1	25	39	. .	. .	1	65
Small-pox	59	41	49	31	10	10	53	40	6	1	. .	. .	67	29	1	3	. .	100
Urticaria	. .	1	. .	1	. .	. .	. .	1	. .	. .	. .	. .	1	. .	. .	. .	. .	1
Worms	. .	1	. .	1	. .	. .	. .	1	. .	. .	. .	. .	1	. .	. .	. .	. .	1
Total	1,777	1,872	1,719	1,807	58	65	1,641	1,748	107	98	29	26	2,706	748	66	98	31	3,649
ORDER TWO—ENTHETIC.																		
Equina	1	. .	1	. .	. .	. .	1	. .	. .	. .	. .	. .	1	. .	. .	. .	. .	1
Syphilis, acquired	11	2	9	2	2	. .	10	2	1	. .	. .	. .	5	2	5	1	. .	13
Syphilis, constitutional	4	11	2	9	2	2	4	8	. .	2	. .	1	15	. .	. .	. .	. .	15
Total	16	13	12	11	4	2	15	10	1	2	. .	1	21	2	5	1	. .	29
ORDER THREE—DIETIC.																		
Delirium tremens	8	. .	8	. .	. .	. .	6	. .	2	. .	. .	. .	2	4	2	. .	. .	8
Inanition	130	102	125	94	5	8	124	97	4	1	2	4	217	7	2	4	2	232
Intemperance	11	7	11	7	. .	. .	10	5	1	2	. .	. .	4	11	1	2	. .	18
Purpura	3	. .	3	. .	. .	. .	2	. .	1	. .	. .	. .	3	. .	. .	. .	. .	3
Purpura, hemorrhagica	1	. .	1	. .	. .	. .	1	. .	. .	. .	. .	. .	. .	. .	1	. .	. .	1
Total	153	109	148	101	5	8	143	102	8	3	2	4	226	22	6	6	2	262
ORDER FOUR—PARASITIC.																		
Aphtha	3	. .	3	. .	. .	. .	3	. .	. .	. .	. .	. .	3	. .	. .	. .	. .	3
Eczema	2	2	2	2	. .	. .	1	2	. .	. .	1	. .	1	2	. .	. .	1	4
Elephantiasis	. .	1	. .	1	. .	. .	. .	1	. .	. .	. .	. .	. .	1	. .	. .	. .	1
Thrush	2	. .	2	. .	. .	. .	2	. .	. .	. .	. .	. .	2	. .	. .	. .	. .	2
Total	7	3	7	3	. .	. .	6	3	. .	. .	1	. .	6	3	. .	. .	1	10
Miasmatic	1,777	1,872	1,719	1,807	58	65	1,641	1,748	107	98	29	26	2,706	748	66	98	31	3,649
Enthetic	16	13	12	11	4	2	15	10	1	2	. .	1	21	2	5	1	. .	29
Dietic	153	109	148	101	5	8	143	102	8	3	2	4	226	22	6	6	2	262
Parasitic	7	3	7	3	. .	. .	6	3	. .	. .	1	. .	6	3	. .	. .	1	10
Total	1,953	1,997	1,886	1,922	67	75	1,805	1,863	116	103	32	31	2,959	775	77	105	34	3,950

TABLE No. IV—Continued.

CLASS TWO—CONSTITUTIONAL DISEASES.

Showing total number of Deaths in the State of Indiana, arranged in Classes, Orders, Sex, Color, Nationality and Social Relation, for the year ending September 30, 1884.

CLASS TWO—CONSTITUTIONAL DISEASES.	TOTAL		COLOR.				NATIONALITY.						Single.	Married.	Widower.	Widow.	Not Reported.	Whole Number.
	Male.	Female.	White.		Black.		American.		Foreign.		Not Rep'td.							
			M.	F.	M.	F.	M.	F.	M.	F.	M.	F.						
ORDER ONE—DIATHETIC.																		
Anæmia	9	21	9	21	..	..	7	19	1	2	1	..	11	16	..	2	1	30
Anasarca	12	8	10	8	2	..	11	8	1	....	..	..	2	13	2	3	..	20
Ascites	7	8	7	8	..	..	5	8	1	....	1	..	4	7	1	3	..	15
Cancer	44	52	44	51	..	1	34	44	7	6	3	2	12	66	5	13	..	96
Cancer, abdomen	1	....	1	....	..	..	1	....	....	....	..	..	....	1	..	....	..	1
Cancer, bowels	2	2	2	2	..	..	2	2	....	....	..	..	1	3	..	....	..	4
Cancer, breast	2	22	2	19	..	3	2	18	....	3	..	1	....	18	..	6	..	24
Cancer, epithelial	....	1	....	1	..	..	....	1	....	....	..	..	....	1	..	....	..	1
Cancer, eye	1	1	1	1	..	..	1	1	....	....	..	..	1	....	..	1	..	2
Cancer, face	3	1	3	....	..	1	3	1	....	....	..	..	2	2	..	....	..	4
Cancer, fibroid	1	....	1	....	..	..	1	....	....	....	..	..	....	1	..	....	..	1
Cancer, heart	1	1	1	1	..	..	1	1	....	....	..	..	....	2	..	....	..	2
Cancer, larynx	1	....	1	....	..	..	1	....	....	....	..	..	....	....	1	....	..	1
Cancer, liver	9	9	9	8	..	1	5	6	3	3	1	..	2	11	1	4	..	18
Cancer, mesenteric glands	....	1	....	4	..	..	....	....	....	1	..	..	....	....	..	1	..	1
Cancer, neck	1	1	1	1	..	..	1	....	....	1	..	..	....	1	1	....	..	2
Cancer, œsophagus	....	1	....	1	..	..	....	....	....	....	..	1	....	....	..	1	..	1

Cancer, rectum	3	6	3	6	...	...	3	4	...	1	...	1	...	7	...	2	...	9
Cancer, stomach	45	27	45	27	...	...	36	20	7	7	2	...	10	46	3	11	2	72
Cancer, uterus	...	34	...	33	...	1	...	31	...	3	...	...	2	23	...	9	...	34
Chlorosis	...	5	...	5	...	...	...	5	...	...	...	...	1	4	...	...	...	5
Dropsy	77	74	68	66	9	8	68	60	8	10	1	4	44	74	6	25	2	151
Goitre, exopthalmic	...	2	...	2	...	...	...	2	...	...	...	...	1	1	...	...	...	2
Gout	1	1	1	1	...	...	1	...	...	1	...	...	...	1	...	1	...	2
Heart, rheumatism of	8	5	8	4	...	1	7	3	...	...	1	2	7	6	...	...	...	13
Leucocythemia	3	11	3	10	...	1	3	11	...	...	...	...	2	10	1	...	1	14
Lupus	1	1	1	1	...	...	1	1	...	...	...	...	1	1	...	...	...	2
Lymphadenoma	2	2	2	2	...	...	2	2	...	...	...	...	1	2	...	...	1	4
Melanosis	...	1	...	1	...	...	...	1	...	...	...	...	...	1	...	...	...	1
Mesenteric glands, disease of	...	1	...	1	...	...	...	1	...	...	...	...	...	1	...	...	...	1
Pancreas, disease of	...	1	...	1	...	...	...	1	...	...	...	...	...	1	...	...	...	1
Rheumatism	30	20	30	19	...	1	26	18	4	2	...	...	18	24	3	5	...	50
Rheumatism, inflammatory	...	3	...	3	...	...	...	3	...	...	...	...	1	2	...	...	...	3
Total	264	323	253	305	11	18	222	272	32	40	10	11	123	346	34	87	7	587
ORDER TWO—TUBERCULAR.																		
Abscess, psoas	2	...	2	...	...	...	2	...	...	...	...	...	...	2	...	...	...	2
Hydrocephalus	26	20	26	20	...	...	26	20	...	...	...	...	46	...	...	...	...	46
Laryngitis, tubercular	2	...	2	...	...	...	2	...	...	...	...	...	...	1	1	...	...	2
Meningitis, tubercular	37	49	34	49	3	...	36	48	1	1	...	...	84	2	...	...	...	86
Morbus Coxarius	3	5	3	5	...	...	3	5	...	...	...	...	6	2	...	...	...	8
Phthisis pulmonalis	875	1,257	810	1,172	65	85	770	1,155	84	75	21	27	826	1,068	58	134	46	2,132
Pott's disease	1	1	1	...	...	1	1	1	...	...	...	...	2	...	...	...	...	2
Rachitis	...	3	...	3	...	...	...	3	...	...	...	...	3	...	...	...	...	3
Scrofula	26	20	23	18	3	2	25	19	...	1	1	...	40	4	...	...	2	46
Tabe's dorsalis	...	1	...	1	...	...	...	1	...	...	...	...	1	...	...	...	...	1
Tabe's mesenterica	8	11	7	8	1	3	8	10	...	1	...	...	15	3	...	1	...	19
Total	980	1,367	908	1,276	72	91	873	1,262	85	78	22	27	1,023	1,082	59	185	48	2,347
Diathetic	264	323	253	305	11	18	222	272	32	40	10	11	123	346	24	87	7	587
Tubercular	980	1,367	908	1,276	72	91	873	1,262	85	78	22	27	1,023	1,082	59	135	48	2,347
Total	1,244	1,690	1,161	1,581	83	109	1,095	1,534	117	118	32	38	1,146	1,428	83	222	55	2,934

TABLE NO. IV—Continued.

CLASS THREE—LOCAL DISEASES.

Showing total number of Deaths in the State of Indiana, arranged in Classes, Orders, Sex, Color, Nationality and Social Relations, for the year ending September 30, 1884.

CLASS THREE—LOCAL DISEASES.	TOTAL.		COLOR.				NATIONALITY.						Single.	Married.	Widower.	Widow.	Not Reported.	Whole Number.
	Male.	Female.	White.		Black.		American.		Foreign.		Not Rep'td.							
			M.	F.	M.	F.	M.	F.	M.	F.	M.	F.						
ORDER ONE—NERVOUS SYSTEM.																		
Apoplexy	95	73	95	72	..	1	72	61	21	11	2	1	26	87	29	23	3	168
Brain, abscess of	2	2	2	2	..	..	2	2	...	...	..	..	2	2	..	...	..	4
Brain, anæmia of	1	3	1	3	..	..	1	3	...	...	..	..	...	4	..	...	..	4
Brain, compression of	...	1	...	1	..	..	...	1	...	...	..	..	1	...	..	...	..	1
Brain, congestion of	93	102	87	97	6	5	85	97	8	2	..	3	147	33	3	5	7	195
Brain, disease of	8	12	8	12	..	..	8	9	...	3	..	..	13	5	..	1	1	20
Brain, effusion of	2	2	2	2	..	..	2	2	...	...	..	..	3	1	..	...	..	4
Brain fever	15	10	15	10	..	..	15	10	...	...	..	..	21	3	..	...	1	25
Brain, hemorrhage of	12	13	11	12	1	1	11	13	...	...	1	..	6	15	..	4	..	25
Brain, hyperæmia of	1	...	1	...	..	..	1	...	...	...	..	..	1	...	..	...	..	1
Brain, inflammation of	40	32	39	32	1	..	40	32	...	...	..	..	58	12	..	1	1	72
Brain, paralysis of	3	1	3	1	..	..	2	1	1	...	..	..	3	...	1	...	..	4
Brain, sclerosis of	...	1	...	1	..	..	...	1	...	...	..	..	...	...	..	1	..	1
Brain, softening of	40	28	38	28	2	..	35	26	5	2	..	..	15	31	8	11	3	68
Brain, tumor of	2	...	2	...	..	..	2	...	...	...	..	..	2	...	..	...	..	2
Cerebritis	42	34	42	31	..	3	41	31	1	3	..	..	62	10	1	2	1	76
Chorea	...	1	...	1	..	..	...	1	...	...	..	..	...	1	..	...	..	1
Convulsions	1	3	1	3	..	..	1	3	...	...	..	..	...	3	..	1	..	4
Convulsions, infantile	150	120	138	112	12	8	135	116	11	3	4	1	270	...	..	...	..	270

Epilepsy	19	25	19	22	..	3	15	21	2	3	2	1	27	9	1	6	1	44
Inflammation	2	1	2	1	..	..	2	1	...	...	..	..	3	...	..	...	..	3
Insanity	15	14	15	12	..	2	10	11	3	2	2	1	14	13	..	1	1	29
Locomotor ataxia	5	1	5	1	..	..	5	1	...	...	..	..	4	1	1	...	..	6
Mania, hysteria	....	1	....	1	..	..	....	1	...	...	..	..	1	...	..	...	..	1
Meningitis	131	147	129	139	2	8	128	141	2	4	1	2	238	28	1	3	8	278
Meningitis, cerebral	23	21	23	20	..	1	21	21	2	...	..	..	41	2	..	1	..	44
Meningitis, spinal	13	5	12	4	1	1	12	5	1	...	..	..	16	2	..	...	..	18
Muscular atrophy	1	....	1	....	..	..	1	....	...	...	..	..	....	1	..	...	..	1
Myelitis	4	4	4	4	..	..	4	3	...	...	..	1	3	4	..	1	..	8
Neuralgia.	....	4	....	4	..	..	....	3	...	1	..	..	....	2	..	2	..	4
Neurasthemia	5	6	5	6	..	..	3	6	2	...	..	..	2	8	..	1	..	11
Paralysis	150	119	149	116	1	3	124	96	21	19	5	4	37	130	37	56	9	269
Spine, congestion of	2	2	2	2	..	..	2	2	...	...	..	..	3	1	..	...	..	4
Spine, curvature of	....	1	....	1	..	..	....	1	...	...	..	..	1	...	..	...	..	1
Spine, disease of	11	5	9	4	2	1	10	5	1	...	..	..	12	4	..	...	..	16
Spinal cord, sclerosis of	1	2	1	2	..	..	1	1	...	1	..	..	....	2	..	1	..	3
Tetanus	16	5	15	5	1	..	16	5	...	...	..	..	15	6	..	...	..	21
Thrombosis, cerebral	2	1	2	....	..	1	1	1	1	...	..	..	....	3	..	...	..	3
Trismus Nascentium	9	5	9	5	..	..	9	5	...	...	..	..	14	...	..	...	..	14
Total	916	807	887	769	29	38	817	739	82	54	17	14	1,061	423	82	121	36	1,723
ORDER TWO—CIRCULATORY.																		
Aneurism	3	4	3	4	..	..	3	4	...	...	..	..	1	4	..	2	..	7
Angina Pectoris	10	13	10	12	..	1	10	12	...	...	..	1	4	12	3	4	..	23
Aorta, aneurism of	....	1	....	1	..	..	....	1	...	...	..	..	....	1	..	...	..	1
Aorta, rupture of	....	1	....	1	..	..	....	1	...	...	..	..	....	1	..	...	..	1
Aorta, stenosis of	2	....	2	....	..	..	2	....	...	...	..	..	....	2	..	...	..	2
Arteritis	1	....	1	....	..	..	1	....	...	...	..	..	1	...	..	...	..	1
Congestion	17	22	16	22	1	..	14	20	2	1	1	1	25	9	2	3	..	39
Dyspnea	....	1	....	1	..	..	....	1	...	...	..	..	1	...	..	...	..	1
Embolism	3	6	2	6	1	..	3	6	...	...	..	..	1	7	1	...	..	9
Endo-carditis	10	5	10	5	..	..	9	4	1	...	..	1	10	5	..	...	..	15
Heart, atrophy of	2	....	2	....	..	..	2	....	...	...	..	..	....	2	..	...	..	2
Heart clot	5	3	5	3	..	..	4	2	1	1	..	.	....	7	1	...	..	8
Heart, dilitation of	4	4	4	4	..	..	4	3	..	1	..	..	....	5	1	2	..	8
Heart, disease of	130	142	124	138	6	4	104	124	22	17	4	1	59	154	8	37	14	272
Heart, fatty of	8	9	8	9	..	..	7	7	...	...	1	2	1	12	..	3	1	17
Heart, hypertrophy of	11	10	11	10	..	..	9	9	1	1	1	..	11	5	1	2	2	21
Heart, neuralgia of	5	4	5	4	..	..	4	4	...	..	1	..	1	6	1	1	..	9
Heart, paralysis of	10	10	19	9	..	1	17	9	2	1	..	..	3	13	5	7	1	29
Heart, valvular disease of	56	42	48	39	8	3	46	39	9	2	1	1	21	55	8	14	..	98
Hemorrhage	15	11	13	11	2	..	11	10	3	1	1	..	14	10	2	...	..	26
Hydropericardium	9	12	9	12	..	..	8	11	...	1	1	..	5	12	..	3	1	21
Pericarditis	12	6	12	5	..	1	12	5	...	1	..	..	7	10	1	...	..	18
Phlebitis	2	2	2	2	..	..	2	1	...	1	..	..	1	2	..	1	..	4
Total	324	308	306	298	18	10	272	273	41	28	11	7	166	334	34	79	19	632

TABLE IV—CLASS THREE—LOCAL DISEASES—Continued.

CLASS THREE—LOCAL DISEASES.	TOTAL.		COLOR.				NATIONALITY.						Single.	Married.	Widower.	Widow.	Not Reported.	Whole Number.
	Male.	Female.	White.		Black.		American.		Foreign.		Not Rep'td.							
			M.	F.	M.	F.	M.	F.	M.	F.	M.	F.						
ORDER THREE—RESPIRATORY.																		
Apnœa	1	1	1	1			1	1					2					2
Asthma	23	18	23	18			15	13	7	4	1	1	6	22	6	6	1	41
Bronchitis	149	116	136	114	13	2	125	103	17	6	7	7	168	51	12	25	9	265
Bronchitis, capillary	12	16	12	16			11	15	1			1	20	4	1	1	2	28
Catarrh, capillary	3	2	3	2			3			2			2	1		2		5
Catarrh, intestinal	2	2	2	2			1	2			1		3	1				4
Embolism, pulmonary		1		1				1						1				1
Emphysema	3		3				2		1				1	1	1			3
Empyema	4	2	4	2			3	2	1				3	1	2			6
Epistaxis		1		1				1					1					1
Glottis, œdema of	2	1	2	1			2	1					2	1				3
Hæmoptysis	13	11	11	10	2	1	13	8		2		1	7	10	1	5	1	24
Hydrothorax	4	5	4	5			3	4	1	1			2	5	1	1		9
Influenza	1		1				1							1				1
Laryngitis	13	13	12	13	1		11	12	1		1	1	23	3				26
Lungs, abscess of	6	9	6	8		1	6	8		1			7	7	1			15
Lungs, congestion of	47	51	46	49	1	2	34	42	10	6	3	3	57	25	4	9	3	98
Lungs, disease of	3	5	3	5			3	5					4	4				8
Lungs, œdema of	2	4	2	4			2	3		1			5	1				6
Pleurisy	9	4	8	4	1		7	4	1		2		3	7	2	1		13
Pneumonitis	549	467	525	445	24	22	486	409	45	37	18	21	496	395	45	66	14	1,016
Pneumonitis, broncho	4	4	4	3		1	4	4					5	3				8
Pneumonitis, catarrhal	2	1	2	1			2	1					3					3
Pneumonitis, pleuro	21	12	20	12	1		19	10	2	2			10	19	2	1	1	33
Pueumonitis, typhoid	43	33	42	31	1	2	35	29	5	3	3	1	34	31	4	6	1	76
Throat, ulceration of	1	1	1	1			1	1					2					2
Thoracic tumor		1		1				1									1	1
Total	917	781	873	750	44	31	790	680	92	65	35	36	866	594	82	123	33	1,698
ORDER FOUR—DIGESTIVE.																		
Abdomen, tumor of		2		2				2					1	1				2

Bile duct, occlusion of	1	..	1	..	..	..	1	..	..	..	..	..	..	1	..	..	..	1
Bowels, congestion of	20	17	20	17	..	..	20	16	..	1	..	..	24	9	1	2	1	37
Bowels, hemorrhage of	8	6	8	6	..	..	7	4	1	2	..	..	9	4	1	..	..	14
Bowels, obstruction of	21	15	21	15	..	..	18	14	2	1	1	..	17	9	3	4	3	36
Bowels, occlusion of	1	2	1	2	..	..	1	2	..	..	..	..	1	..	..	2	..	3
Bowels, rupture of	..	1	..	1	..	..	..	1	..	..	..	..	..	..	..	1	..	1
Bowels, tuberculosis	..	2	..	1	..	1	..	2	..	..	..	..	1	1	..	..	..	2
Bowels, tumor of	..	1	..	1	..	..	..	1	..	..	..	..	1	..	..	..	..	1
Bowels, ulceration of	5	5	4	5	1	..	4	5	1	..	..	..	7	1	1	1	..	10
Cancrum Oris	1	..	1	..	..	..	..	..	1	..	..	..	..	1	..	..	..	1
Catarrh, enteric	..	1	..	1	..	..	..	1	..	..	..	..	..	..	..	1	..	1
Colic	1	4	1	4	..	..	1	4	..	..	..	..	..	3	..	2	..	5
Colitis	6	4	6	4	..	..	5	4	..	..	1	..	10	..	..	..	..	10
Dyspepsia	17	13	16	13	1	..	13	12	4	1	..	..	17	9	3	1	..	30
Enteritis	100	108	97	103	3	5	88	100	11	7	1	1	151	36	7	7	7	208
Gastritis	56	67	55	66	1	1	51	58	4	5	1	4	51	48	9	13	2	123
Gastro-enteritis	23	17	23	17	..	..	18	14	3	1	2	2	22	71	4	2	1	40
Glossitis	..	1	..	1	..	..	..	..	..	..	..	1	..	..	..	1	..	1
Hematemesis	1	..	1	..	..	..	1	..	..	..	..	1	..	..	..	..	..	1
Hepatitis	24	11	22	11	2	..	20	9	4	..	..	2	12	18	2	3	..	35
Hernia	5	2	5	2	..	..	3	2	2	..	..	..	2	3	1	1	..	7
Hernia, strangulated	10	8	9	8	1	..	10	6	..	2	..	..	3	11	..	4	..	18
Intestines, perforation of	1	..	1	..	..	..	1	..	..	..	..	..	1	..	..	..	..	1
Intussusception	14	8	14	8	..	..	13	8	..	..	1	..	18	3	1	..	..	22
Jaundice	13	15	13	15	..	..	13	13	..	2	..	..	15	7	1	5	..	28
Liver, abscess of	6	11	6	10	..	1	6	11	..	..	..	..	2	14	..	1	..	17
Liver, atrophy of	2	2	2	2	..	..	2	2	..	..	..	..	1	3	..	..	..	4
Liver, cirrhosis of	28	10	28	8	..	2	19	9	7	1	2	..	6	27	2	2	1	38
Liver, congestion of	3	2	3	2	..	..	3	2	..	..	..	..	1	3	..	1	..	5
Liver, disease of	4	3	4	3	..	..	4	3	..	..	..	..	1	3	1	2	..	7
Liver, enlargement of	1	1	1	1	..	..	1	1	..	..	..	..	1	1	..	..	..	2
Liver, fatty of	..	1	..	1	..	..	..	1	..	..	..	..	..	1	..	..	..	1
Liver, sclerosis of	2	1	2	1	..	..	2	1	..	..	..	..	1	2	..	..	..	3
Œsophagus, contraction of	1	1	1	1	..	..	1	1	..	..	..	..	1	1	..	..	..	2
Peritonitis	43	73	43	71	..	2	37	58	5	12	1	3	39	60	2	12	3	116
Rectum, malig. stricture of	1	..	1	..	..	..	1	..	..	..	..	..	..	1	..	..	..	1
Rectum, occlusion of	1	..	1	..	..	..	1	..	..	..	..	..	1	..	..	..	..	1
Rectum, ulceration of	2	..	2	..	..	..	2	..	..	..	..	..	..	2	..	..	..	2
Splenitis	1	6	1	6	..	..	1	5	..	..	..	1	3	4	..	..	..	7
Stomach, abscess of	1	..	1	..	..	..	..	..	1	..	..	..	..	1	..	..	..	1
Stomach, catarrh of	1	1	1	1	..	..	1	1	..	..	..	..	..	1	..	..	1	2
Stomach, congestion of	23	24	22	24	1	..	23	24	..	..	..	..	24	16	2	5	..	47
Stomach, disease of	5	3	5	3	..	..	5	3	..	..	..	..	3	3	2	..	..	8
Stomach, hemorrhage of	3	1	3	1	..	..	3	1	..	..	..	..	1	3	..	..	..	4
Stomach, neuralgia of	..	1	..	1	..	..	..	1	..	..	..	..	..	1	..	..	..	1
Stomach, ulceration of	14	9	14	9	..	..	9	8	4	..	1	1	9	12	2	..	..	23
Stomatis	1	5	1	5	..	..	1	5	..	..	..	..	5	1	..	..	..	6
Stomatis, mercurial	..	1	..	1	..	..	..	1	..	..	..	..	1	..	..	..	..	1
Throat, abscess of	2	..	2	..	..	..	2	..	..	..	..	..	2	..	..	..	..	2
Throat, disease of	..	1	..	1	..	..	..	1	..	..	..	..	1	..	..	..	..	1

TABLE IV—CLASS THREE—LOCAL DISEASES—Continued.

CLASS THREE—LOCAL DISEASES.	TOTAL.		COLOR.				NATIONALITY.						Single.	Married.	Widower.	Widow.	Not Reported.	Whole Number.
	Male.	Female.	White.		Black.		American.		Foreign.		Not Rep'td.							
			M.	F.	M.	F.	M.	F.	M.	F.	M.	F.						
ORDER FOUR—DIGESTIVE—Continued.																		
Tonsilitis	12	6	12	6	...	...	11	5	...	1	1	...	18	...	...	...	...	18
Tumor, parotid	1	...	1	...	...	...	1	...	...	...	...	...	1	...	...	...	...	1
Tympanitis	1	...	1	...	...	...	1	...	...	...	...	...	...	1	...	...	...	1
Typhlitis	2	4	2	4	...	...	1	3	1	1	...	...	2	4	...	...	...	6
Total	489	477	479	465	10	12	426	425	51	37	12	15	488	341	45	73	19	966
ORDER FIVE—URINARY.																		
Albumbinuria	7	6	7	6	...	...	7	5	...	1	...	...	4	7	2	...	...	13
Bladder, atrophy of	1	...	1	...	...	...	1	...	...	...	...	...	...	...	1	...	...	1
Bladder, disease of	2	1	2	1	...	...	2	1	...	...	...	...	...	1	1	1	...	3
Bladder, paralysis of	1	...	1	...	...	...	...	...	1	...	...	...	...	...	1	...	...	1
Calculi, billiary	...	1	...	1	...	...	...	1	...	...	...	...	...	1	...	...	...	1
Calculus	4	1	4	1	...	...	3	1	...	...	1	...	...	3	...	...	2	5
Cystitis	46	7	46	7	...	...	36	6	8	1	2	...	9	31	10	3	...	53
Diabetes	32	13	31	13	1	...	31	12	1	...	...	1	21	21	2	1	...	45
Gall duct stenosis	1	...	1	...	...	...	1	...	...	...	...	...	1	...	...	...	...	1
Hæmaturia	1	...	1	...	...	...	1	...	...	...	...	...	1	...	...	...	...	1
Hodgkin's disease	1	...	1	...	...	...	1	...	...	...	...	...	1	...	...	...	...	1
Ischuria renalis	...	1	...	1	...	...	...	1	...	...	...	...	1	...	...	...	...	1
Kidneys, abscess of	1	2	1	2	...	...	1	1	...	1	...	...	...	2	...	1	...	3
Kidneys, cirrhosis of	...	1	...	1	...	...	...	1	...	...	...	...	...	1	...	...	...	1
Kidneys, disease of	10	6	8	6	2	...	10	5	...	1	...	...	3	9	2	2	...	16
Melanosis	1	...	1	...	...	...	...	...	1	...	...	...	...	1	...	...	...	1
Nephria	76	37	74	37	2	...	63	33	11	3	2	1	29	61	9	8	6	113
Nephritis	47	30	45	29	2	1	38	27	7	3	2	...	35	32	7	2	1	77
Prostatis	4	...	3	...	1	...	4	...	...	...	...	...	...	4	...	...	...	4
Pyelitis	1	...	1	...	...	...	1	...	...	...	...	...	...	1	...	...	...	1
Uræmie poisoning	23	19	23	19	...	...	20	16	2	3	1	...	15	12	7	6	2	42
Urethra, stricture of	3	...	3	...	...	...	3	...	...	...	...	...	1	1	1	...	...	3
Urine, extravasation of	1	...	1	...	...	...	1	...	...	...	...	...	1	...	...	...	...	1
Urine, retention of	...	1	...	1	...	...	...	1	...	...	...	...	...	1	...	...	...	1

Urine, suppression of	1	....	1	....	..	..	1	....	...	...	..	..	1	...	..	...	..	1
Total	264	126	256	125	8	1	225	111	31	13	8	2	123	189	43	24	11	390
Order Six—Generative Organs.																		
Menstruation, vicarious	....	1	....	1	..	..	....	1	...	...	..	..	1	...	..	...	..	1
Metritis	....	12	....	11	..	1	....	10	...	1	..	1	1	10	..	1	..	12
Ovarian tumor	....	9	....	9	..	..	....	7	...	2	..	..	1	6	..	2	..	9
Ovaritis	....	2	....	2	..	..	....	2	...	...	..	..	1	...	..	1	..	2
Uterine tumor	....	2	....	2	..	..	....	2	...	...	..	..	....	2	..	...	..	2
Uterus, disease of	....	4	....	4	..	..	....	2	...	...	..	2	....	1	..	2	1	4
Varicocele	1	....	1	....	..	..	1	....	...	...	..	..	1	...	..	...	..	1
Total	1	30	1	29	..	1	1	24	...	3	..	3	5	19	..	6	1	31
Order Seven—Osseous and Locomotory.																		
Caries of vertebra	....	2	....	2	..	..	....	2	...	...	..	..	1	1	..	...	..	2
Eyes, inflammation of	1	....	1	....	..	..	1	....	...	...	..	..	1	...	..	...	..	1
Hip disease	1	....	1	....	..	..	1	....	...	...	..	..	1	...	..	...	..	1
Necrosis	2	1	2	1	..	..	2	1	...	...	..	..	2	1	..	...	..	3
Periostitis	....	1	....	1	..	..	....	1	...	...	..	..	1	...	..	...	..	1
Sacro iliac, disease of	....	1	....	1	..	..	....	1	...	...	..	..	1	...	..	...	..	1
Total	4	5	4	5	..	..	4	5	...	...	..	..	7	2	..	...	..	9
Order Eight—Integumentary.																		
Abscess	12	7	12	7	..	..	10	7	2	...	..	..	6	12	..	...	1	19
Abscess, ear	....	1	....	1	..	..	....	1	...	...	..	..	1	...	..	...	..	1
Abscess, retropharyngeal	1	....	1	....	..	..	1	....	...	...	..	..	....	1	..	...	..	1
Abscess, thigh	1	....	1	....	..	..	....	....	1	...	..	..	....	1	..	...	..	1
Cellulitis	....	3	....	3	..	..	....	3	...	...	..	..	2	1	..	...	..	3
Erythema	1	....	1	....	..	..	1	....	...	...	..	..	1	...	..	...	..	1
Muscles, atrophy of	1	....	1	....	..	..	....	....	...	...	1	..	....	...	1	...	..	1
Ulcer, chronic	1	2	1	2	..	..	1	2	...	...	..	..	....	1	..	1	1	3
Ulcer, leg	1	....	1	....	..	..	1	....	...	...	..	..	....	1	..	...	..	1
Umbilicus, ulceration of	1	....	1	....	..	..	1	....	...	...	..	..	1	...	..	...	..	1
Total	19	13	19	13	..	..	15	13	3	...	1	..	11	17	1	1	2	32
Order Nine—Miscellaneous.																		
Dacro cystitis	1	....	1	....	..	..	1	....	...	...	..	..	1	...	..	...	..	1
Osteitis	....	1	....	1	..	..	....	1	...	...	..	..	1	...	..	...	..	1
Tumor, undefined	1	1	1	1	..	..	1	1	...	...	..	..	....	1	1	...	..	2
Total	2	2	2	2	..	..	2	2	...	...	..	..	2	1	1	...	..	4

TABLE IV—CLASS THREE—LOCAL DISEASES—Continued.

CLASS THREE—LOCAL DISEASES.	TOTAL.		COLOR.				NATIONALITY.						Single.	Married.	Widower.	Widow.	Not Reported.	Whole Number.
	Male.	Female.	White.		Black.		American.		Foreign.		Not Rep'td.							
			M.	F.	M.	F.	M.	F.	M.	F.	M.	F.						
RECAPITULATION.																		
Nervous system	916	807	887	769	29	38	817	739	82	54	17	14	1,061	423	82	121	36	1,723
Circulatory	324	308	306	298	18	10	272	273	41	28	11	7	166	334	34	79	19	632
Respiratory	917	781	873	750	44	31	790	680	92	65	35	36	866	594	82	123	33	1,698
Digestive	489	477	479	465	10	12	426	425	51	37	12	15	488	341	45	73	19	966
Urinary	264	126	256	125	8	1	225	111	31	13	8	2	123	189	43	24	11	390
Generative organs	1	30	1	29	. .	1	1	24	. . .	3	. .	3	5	19	. .	6	1	31
Osseous and locomotory	4	5	4	5	. .	. .	4	5	. . .	. . .	. .	. .	7	2	. .	. . .	. .	9
Integumentary	19	13	19	13	. .	. .	15	13	3	. . .	1	. .	11	17	1	1	2	32
Miscellaneous	2	2	2	2	. .	. .	2	2	. . .	. .	. .	. .	2	1	1	. . .	. .	4
Total	2,936	2,549	2,827	2,456	109	93	2,552	2.272	300	200	84	77	2,729	1,920	288	427	121	5,485

TABLE No. IV—Continued.

CLASS FOUR—DEVELOPMENTAL DISEASES.

Showing total number of Deaths in the State of Indiana, arranged in Classes, Orders, Sex, Color, Nationality and Social Relation, for the year ending September 30, 1884.

CLASS FOUR—DEVELOPMENTAL DISEASES.	TOTAL.		COLOR.				NATIONALITY.						Single.	Married.	Widower.	Widow.	Not Reported.	Whole Number.
	Male.	Female.	White.		Black.		American.		Foreign.		Not Rep'td.							
			M.	F.	M.	F.	M.	F.	M.	F.	M.	F.						
ORDER ONE—CHILDREN.																		
Atelectasis	8	2	7	2	1	...	8	2	...	...	...	...	10	...	...	...	...	10
Birth injuries	5	5	4	5	1	...	5	5	...	...	...	...	10	...	...	...	...	10
Birth, premature	128	108	124	101	4	7	127	108	...	...	1	...	236	...	...	...	...	236
Congenital causes	3	2	3	2	...	...	3	1	...	1	...	...	5	...	...	...	...	5
Craniotomy	...	2	...	2	...	...	...	2	...	...	...	...	2	...	...	...	...	2
Cyanosis	37	31	37	31	...	...	37	31	...	...	...	...	68	...	...	...	...	68
Debility, infantile	16	20	15	20	1	...	16	20	...	...	...	...	36	...	...	...	...	36
Dentition	11	6	11	6	...	...	11	6	...	...	...	...	17	...	...	...	...	17
Laryngismus, stridulus	1	...	1	...	...	...	1	...	...	...	...	...	1	...	...	...	...	1
Malformation	7	7	7	7	...	...	7	7	...	...	...	...	14	...	...	...	...	14
Malnutrition	6	6	6	6	...	...	6	6	...	...	...	...	12	...	...	...	...	12
Pressure on cord	1	...	1	...	...	...	1	...	...	...	...	...	1	...	...	...	...	1
Prolapsis funis	1	...	1	...	...	...	1	...	...	...	...	...	1	...	...	...	...	1
Spina bifida	7	10	7	10	...	...	7	10	...	...	...	...	17	...	...	...	...	17
Strangulation	...	2	...	2	...	...	...	2	...	...	...	...	2	...	...	...	...	2
Umbilical cord, disease of	...	2	...	2	...	...	...	2	...	...	...	...	2	...	...	...	...	2
Umbilical cord, fistula	1	...	1	...	...	...	1	...	...	...	...	...	1	...	...	...	...	1
Umbilical cord, hemorrhage	4	4	4	4	...	...	4	4	...	...	...	...	8	...	...	...	...	8
Total	236	207	229	200	7	7	235	206	...	1	1	...	443	...	...	...	...	443

VABLE IV—Class Four—Developmental Diseases—Continued.

CLASS FOUR—DEVELOPMENTAL DISEASES.	Total.		Color.				Nationality.						Single.	Married.	Widower.	Widow.	Not Reported.	Whole Number.
			White.		Black.		American.		Foreign.		Not Rep'td.							
	Male.	Female.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.						
Order Two—Women.																		
Amenorrhea	....	1	....	1	..	..	....	1	...	...	..	..	1	...	..	...	..	1
Childbirths, accidents at	....	4	....	4	..	..	....	4	...	...	..	..	1	3	..	...	..	4
Climacteria	....	2	....	2	..	..	....	1	...	1	..	..	....	2	..	...	..	2
Nursing, sore mouth	....	1	....	1	..	..	....	1	...	...	..	..	....	1	..	...	..	1
Ovarian disease	....	1	....	1	..	..	....	1	...	...	..	..	....	1	..	...	..	1
Parturition	....	23	....	22	..	1	....	22	...	1	..	..	1	22	..	...	..	23
Pelvic, abscess	....	2	....	2	..	..	....	2	...	...	..	..	....	2	..	...	..	2
Pelvic, cellulitis	....	1	....	1	..	..	....	1	...	...	..	..	....	1	..	...	..	1
Placenta previa	....	6	....	6	..	..	....	6	...	...	..	..	....	6	..	...	..	6
Phlegmatia dolens	....	1	....	1	..	..	....	1	...	...	..	..	....	1	..	...	..	1
Post partum hemorrhage	....	14	....	14	..	..	....	10	...	3	..	1	....	14	..	...	..	14
Puerperal eclampsia	....	59	....	58	..	1	....	55	...	1	..	3	6	52	..	1	..	59
Puerperal hemorrhage	....	3	....	3	..	..	....	3	...	...	..	..	1	2	..	...	..	3
Puerperal mania	....	1	....	1	..	..	....	1	...	...	..	..	....	1	..	...	..	1
Uterine hemorrhage	....	15	....	15	..	..	....	11	...	3	..	1	....	14	..	1	..	15
Uterus, rupture of	....	1	....	1	..	..	....	1	...	...	..	..	....	1	..	...	..	1
Uterus, ulcer of	....	1	....	1	..	..	....	....	...	1	..	..	....	1	..	...	..	1
Total	....	136	....	134	..	2	....	121	...	10	..	5	10	134	..	2	..	136
Order Three—Old Age.																		
Old age	162	164	157	158	5	6	118	118	34	35	10	11	16	114	70	112	14	326
Order Four—Nutrition.																		
Asthenia	15	26	14	25	1	1	10	21	4	5	1	..	9	15	2	15	..	41
Debility	57	55	54	53	3	2	46	43	10	11	1	1	19	48	15	28	2	112
Exhaustion	15	19	14	19	1	..	13	14	2	4	..	1	8	17	3	6	..	34
Marasmus	31	35	29	33	2	2	28	30	2	4	1	1	47	8	2	8	1	66
Nutrition, imperfect	....	2	....	2	..	..	....	2	...	...	..	..	2	..	..	...	..	2
Total	118	137	111	132	7	5	97	110	18	24	3	3	85	88	22	57	3	255

Children	236	207	229	200	7	7	235	206	...	1	1	..	443	...	..	...	..	443
Women	...	136	...	134	..	2	...	121	...	10	..	5	...	134	..	2	..	136
Old age	162	164	157	158	5	6	118	118	34	35	10	11	16	114	70	112	14	326
Nutrition	118	137	111	132	7	5	97	110	18	24	3	3	85	88	22	57	3	255
Total	516	614	497	624	19	20	450	555	52	70	14	19	544	336	92	171	17	1,160

TABLE No. IV.

CLASS FIVE—ACCIDENTS, VIOLENCE AND NEGLIGENCE.

Showing total number of Deaths in the State of Indiana, arranged in Classes, Order, Sex, Color, Nationality and Social Relation, for the year ending September 30, 1884.

CLASS FIVE—VIOLENCE.	TOTAL.		COLOR.				NATIONALITY.						Single.	Married.	Widower.	Widow.	Not Reported.	Whole Number.
	Male.	Female.	White.		Black.		American.		Foreign.		Not Reported.							
			M.	F.	M.	F.	M.	F.	M.	F.	M.	F.						
ACCIDENTS AND NEGLIGENCE.																		
Abortion	...	23	...	23	...	...	...	22	...	1	...	...	5	18	...	...	...	23
Accident	106	31	106	29	...	2	86	28	16	2	4	1	70	42	13	7	5	137
Accident, railroad	103	6	101	5	2	1	75	5	16	1	12	...	56	40	9	...	4	109
Amputation of leg	1	...	...	...	1	...	1	...	...	...	...	...	...	1	...	...	...	1
Asphyxia	21	18	21	18	...	...	21	18	...	...	...	...	37	1	...	1	...	39
Blow on the head	1	1	1	1	...	...	1	1	...	...	...	...	2	...	...	...	...	2
Brain, concussion of	8	4	7	4	1	...	6	4	2	...	...	...	7	4	...	1	...	12
Burn	10	30	9	30	1	...	9	23	...	5	1	2	25	8	...	6	1	40
Buzz saw	3	...	3	...	...	...	2	...	1	...	...	...	1	2	...	...	...	3
Caught in machinery	1	...	1	...	...	...	1	...	...	...	...	...	1	...	...	...	...	1
Choked by a pea	1	...	1	...	...	...	1	...	...	...	...	...	1	...	...	...	...	1
Chloroform	...	1	...	1	...	...	...	1	...	...	...	...	1	...	...	...	...	1
Coal mine	4	...	4	...	...	...	3	...	1	...	...	...	2	2	...	...	...	4
Concussion	1	...	1	...	...	...	1	...	...	...	...	...	1	...	...	...	...	1
Crushed by saw log	2	...	2	...	...	...	1	...	...	...	1	...	1	...	1	...	...	2
Cut jugular vein with ax	1	...	1	...	...	...	...	...	1	...	...	...	...	...	1	...	...	1
Drinking concentrated lye	1	...	1	...	...	...	1	...	...	...	...	...	1	...	...	...	...	1
Drowned	48	9	40	6	8	3	45	7	2	...	1	2	44	9	...	...	4	57
Explosion of boiler	5	...	5	...	...	...	5	...	...	...	...	...	3	2	...	...	...	5
Explosion of cannon	1	...	...	...	1	...	1	...	...	...	...	...	...	1	...	...	...	1
Explosion of Dynamite	5	...	5	...	...	...	3	...	2	...	...	...	1	4	...	...	...	5

Explosion of gunpowder	1	...	1	...	...	...	...	...	1	...	...	...	...	1	...	...	...	1
Explosion of locomotive	1	...	1	...	...	...	1	...	...	...	...	...	...	1	...	...	...	1
Exposure to cold	4	...	3	...	1	...	4	...	...	...	...	...	1	3	...	...	...	4
Fall	8	4	8	4	...	...	6	4	1	...	1	...	7	4	...	1	...	12
Falling derrick	2	...	2	...	...	...	2	...	...	...	...	...	...	2	...	...	...	2
Falling tree	2	...	1	...	1	...	2	...	...	...	...	...	1	1	...	...	...	2
Falling wall	1	...	1	...	...	...	...	...	1	...	...	...	...	1	...	...	...	1
Fracture	2	...	2	...	...	...	2	...	...	...	...	...	1	1	...	...	...	2
Fracture, arm	...	1	...	1	...	...	...	1	...	...	...	...	...	1	...	...	...	1
Fracture, femur	1	5	1	5	...	...	1	4	...	...	...	1	...	2	...	4	...	6
Fracture, fibula	1	...	1	...	...	...	1	...	...	...	...	...	...	1	...	...	...	1
Fracture, hip	...	1	...	1	...	...	...	1	...	...	...	...	1	...	...	...	...	1
Fracture, leg	...	1	...	1	...	...	...	1	...	...	...	...	...	...	...	1	...	1
Fracture, neck	...	3	...	3	...	...	...	3	...	...	...	...	1	...	...	2	...	3
Fracture, skull	10	...	10	...	...	...	6	...	3	...	1	...	4	6	...	...	...	10
Fracture, spine	4	4	2	4	2	...	4	2	...	2	...	...	5	2	...	1	...	8
Gunshot wound	28	2	28	2	...	...	24	2	2	...	2	...	19	10	1	...	...	30
Hanging	1	...	1	...	...	...	1	...	...	...	...	...	1	...	...	...	...	1
Hemorrhage from wound	1	...	1	...	...	...	1	...	...	...	...	...	1	...	...	...	...	1
Injury	2	...	2	...	...	...	1	...	...	...	1	...	...	2	...	...	...	2
Kicked by a horse	6	...	6	...	...	...	6	...	...	...	...	...	5	1	...	...	...	6
Kicked by a mule	2	1	2	1	...	...	1	1	...	...	1	...	3	...	...	...	...	3
Killed by a bull	1	...	1	...	...	...	1	...	...	...	...	...	...	1	...	...	...	1
Killed by a reaper	1	...	1	...	...	...	1	...	...	...	...	...	1	...	...	...	...	1
Lightning	7	...	7	...	...	...	6	...	1	...	...	...	4	3	...	...	...	7
Pistol shot	7	2	7	2	...	...	7	2	...	...	...	...	3	5	...	1	...	9
Poison	9	8	9	8	...	...	9	7	...	...	...	1	9	5	1	1	1	17
Poison, arsenic	...	2	...	2	...	...	...	2	...	...	...	...	1	...	...	1	...	2
Poison, greens	...	1	...	1	...	...	...	1	...	...	...	...	...	1	...	...	...	1
Poison, lobelia	1	...	1	...	...	...	1	...	...	...	...	...	1	...	...	...	...	1
Poison, morphine	4	1	4	1	...	...	3	...	...	1	1	...	2	2	1	...	...	5
Poison, opium	5	3	5	3	...	...	5	3	...	...	...	...	3	2	...	3	...	8
Poison, strychnia	2	...	2	...	...	...	2	...	...	...	...	...	2	...	...	...	...	2
Poison, white lead	3	...	3	...	...	...	2	...	...	...	1	...	1	2	...	...	...	3
Powder burn	1	...	1	...	...	...	1	...	...	...	...	...	...	1	...	...	...	1
Puncture, wrist by needle	...	1	...	1	...	...	...	1	...	...	...	...	...	1	...	...	...	1
Removal of tumor	...	1	...	1	...	...	...	1	...	...	...	...	...	1	...	...	...	1
Runaway team	1	...	1	...	...	...	1	...	...	...	...	...	...	1	...	...	...	1
Run over by dray	1	...	1	...	...	...	1	...	...	...	...	...	...	1	...	...	...	1
Scald	6	3	6	3	...	...	6	2	...	...	...	1	9	...	...	...	...	9
Shock	...	3	...	3	...	...	...	3	...	...	...	...	1	2	...	...	...	3
Shock from amputation	2	...	2	...	...	...	2	...	...	...	...	...	1	1	...	...	...	2
Shock from operation	1	2	1	2	...	...	...	1	1	1	...	...	...	3	...	...	...	3
Shot	4	...	4	...	...	...	4	...	...	...	...	...	2	2	...	...	...	4
Shot by a policeman	1	...	...	...	1	...	1	...	...	...	...	...	...	1	...	...	...	1
Spine, concussion of	4	...	4	...	...	...	4	...	...	...	...	...	...	4	...	...	...	4
Spine, injury of	2	...	2	...	...	...	1	...	1	...	...	...	1	1	...	...	...	2
Strangulation	...	1	...	1	...	...	...	1	...	...	...	...	1	...	...	...	...	1
Struck by a stone	1	...	1	...	...	...	1	...	...	...	...	...	1	...	...	...	...	1
Suffocated by mother	...	1	...	1	...	...	...	1	...	...	...	...	...	1	...	...	...	1

TABLE IV—CLASS FIVE—ACCIDENTS, ETC.—Continued.

CLASS FIVE—VIOLENCE.	TOTAL.		COLOR.				NATIONALITY.						Single.	Married.	Widower.	Widow.	Not Reported.	Whole Number.
			White.		Black.		American.		Foreign.		Not Reported.							
	Male.	Female.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.						
ORDER TWO—ACCIDENTS—Continued.																		
Sunstroke	3	1	3	1	...	...	3	1	...	...	...	...	1	2	1	...	...	4
Thrown from carriage	1	...	1	...	...	...	1	...	...	...	...	...	...	...	1	...	...	1
Thrown from horse	3	...	2	...	1	...	3	...	...	...	...	...	1	2	...	...	...	3
Thrown from mule	2	...	2	...	...	...	2	...	...	...	...	...	...	2	...	...	...	2
Violence	2	1	2	1	...	...	2	1	...	...	...	...	3	...	...	...	...	3
Wound in head	1	...	1	...	...	...	...	...	...	...	1	...	...	...	...	...	1	1
Total	476	176	458	170	18	6	396	155	52	13	28	8	357	220	29	30	16	652
ORDER THREE—HOMICIDE.																		
Homicide	9	2	8	2	1	...	7	1	1	1	1	...	7	3	1	...	...	11
Stabbed	2	...	2	...	...	...	2	...	...	...	...	...	2	...	...	...	...	2
Total	11	2	10	2	1	...	9	1	1	1	1	...	9	3	1	...	...	13
ORDER FOUR—SUICIDE.																		
Suicide, undefined	38	14	38	14	...	...	25	13	11	1	2	...	21	28	2	1	...	52
Suicide, arsenic	2	...	2	...	...	...	...	...	...	...	2	...	...	2	...	...	...	2
Suicide, corrosive sublimate	1	...	1	...	...	...	1	...	...	...	...	...	1	...	...	...	...	1
Suicide, cutting throat	5	2	5	1	...	1	4	1	1	1	...	...	1	5	...	1	...	7
Suicide, drowning	2	6	2	6	...	...	1	1	...	5	1	...	3	3	1	...	1	8
Suicide, gunshot	2	...	2	...	...	...	1	...	1	...	...	...	...	2	...	...	...	2
Suicide, hanging	18	2	18	2	...	...	16	2	1	...	1	...	4	14	1	...	1	20
Suicide, hydrate of chloral	1	...	1	...	...	...	1	...	...	...	...	...	1	...	...	...	...	1
Suicide, laudanum	1	...	1	...	...	...	1	...	...	...	...	...	...	1	...	...	...	1
Suicide, morphine	7	2	6	2	1	...	6	2	1	...	...	...	1	7	1	...	...	9
Suicide, opium	5	...	5	...	...	...	4	...	1	...	...	...	2	2	...	...	1	5
Suicide, paris green	...	1	...	1	...	...	...	1	...	...	...	...	...	1	...	...	...	1
Suicide, pistol shot	13	1	13	1	...	...	10	1	1	...	2	...	3	6	4	...	1	14
Suicide, poison undefined	1	1	1	1	...	...	1	1	...	...	...	...	2	...	...	...	...	2
Suicide, rough on rats	...	1	...	1	...	...	...	1	...	...	...	...	1	...	...	...	...	1
Suicide, severing, jugular vein	1	...	1	...	...	...	...	...	1	...	...	...	...	...	1	...	...	1
Suicide, strangulation	2	...	2	...	...	...	2	...	...	...	...	...	...	...	2	...	...	2
Total	99	30	98	29	1	1	73	23	18	7	8	...	40	71	12	2	4	129

Unknown	186	132	183	129	3	3	170	119	8	5	8	8	219	74	8	11	6	318
Accidents and negligence	476	176	458	170	18	6	396	155	52	13	28	8	357	220	29	30	16	652
Homicide	11	2	10	2	1	...	9	1	1	1	1	...	9	3	1	...	...	13
Suicide	99	30	98	29	1	1	73	23	18	7	8	...	40	71	12	2	4	129
Unknown	186	132	183	129	3	3	170	119	8	5	8	8	219	74	8	11	6	318
Total	772	340	749	330	23	10	648	298	79	26	45	16	625	368	50	43	26	1,112
RECAPITULATION.																		
Class One	1,953	1,997	1,886	1,922	67	75	1,805	1,863	116	103	32	31	2,959	775	77	105	34	3,950
Class Two	1,244	1,690	1,161	1,581	83	109	1.095	1.534	117	118	32	38	1,146	1,428	83	222	55	2,934
Class Three	2,936	2,549	2,827	2,456	109	93	2,552	2,272	300	200	84	77	2,729	1,920	288	427	121	5,485
Class Four	516	644	497	624	19	20	450	555	52	70	14	19	544	336	92	171	17	1,160
Class Five	772	340	749	330	23	10	648	298	79	26	45	16	625	368	50	43	26	1,112
*Grand total	7,421	7,220	7,120	6,913	301	307	6,550	6,522	664	517	207	181	8,003	4,827	590	968	253	14641

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*Exclusive of still-births.

TABLE No. V.

Showing the causes of Deaths occurring in the State of Indiana, arranged by Classes and Counties, for the year ending September 30, 1884.

COUNTIES.	Zymotic.	Constitutional.	Local.	Developmental.	Violence and Unclassified.	Total from all Causes.
Adams	32	10	27	5	13	87
Allen	155	84	195	43	37	514
Bartholomew	64	38	91	18	15	226
Benton	16	10	23	5	1	55
Blackford	23	6	11	....	3	43
Boone	65	41	65	17	5	193
Brown	15	3	16	6	5	45
Carroll	36	9	58	11	10	124
Cass	25	41	59	13	13	151
Clark	71	23	79	11	18	212
Clay	35	16	50	8	15	124
Clinton	18	6	23	3	4	54
Crawford	34	15	22	5	3	79
Daviess	43	16	56	9	5	129
Dearborn	30	39	79	9	21	178
Decatur	23	19	65	12	2	121
Dekalb	15	26	31	9	12	93
Delaware	37	30	77	6	13	163
Dubois	20	12	41	2	8	83
Elkhart	35	17	45	3	20	120
Fayette	15	13	40	10	3	81
Floyd	84	52	87	21	16	260
Fountain	18	23	49	10	13	113
Franklin	11	7	15	6	6	45
Fulton	15	8	17	10	2	52
Gibson	62	35	63	4	17	181
Grant	42	28	57	35	18	180
Greene	32	21	47	13	10	123
Hamilton	81	31	68	30	7	217
Hancock	22	26	35	6	11	100
Harrison	43	20	37	11	15	126
Hendricks	39	42	75	24	17	197
Henry	42	40	72	17	17	188
Howard	39	26	52	16	10	143
Huntington	78	43	93	19	16	249
Jackson	30	20	83	6	6	145
Jasper	9	4	29	6	3	51
Jay	28	13	45	2	10	98
Jefferson	20	30	38	6	15	109
Jennings	16	21	35	10	3	85

TABLE No. V—Continued.

COUNTIES.	Zymotic.	Constitutional.	Local.	Developmental.	Violence and Unclassified.	Total from all Causes.
Johnson	53	26	94	17	9	199
Knox	36	15	37	12	12	112
Kosciusko	40	15	52	6	11	124
Lagrange	19	22	18	5	3	67
Lake	40	16	25	9	6	96
Laporte	104	30	123	26	18	301
Lawrence	22	20	29	6	6	83
Madison	61	51	105	21	27	265
Marion	390	390	662	180	97	1,719
Marshall	14	12	18	4	11	59
Martin	12	11	27	3	4	57
Miami	42	42	84	16	30	214
Monroe	26	44	57	14	11	152
Montgomery	47	41	87	16	11	202
Morgan	19	16	29	2	4	70
Newton	10	7	32	3	6	58
Noble	19	7	38	14	6	84
Ohio	10	13	22	2	2	49
Orange	14	31	36	8	6	95
Owen	24	19	34	13	3	93
Parke	29	17	33	11	16	106
Perry	23	9	18	5	5	60
Pike	34	16	31	4	8	93
Porter	14	6	26	3	4	53
Posey	115	39	125	29	24	332
Pulaski	10	7	17	3	4	41
Putnam	31	35	79	18	10	173
Randolph	64	41	94	18	18	235
Ripley	22	25	62	3	....	112
Rush	42	41	60	21	9	173
Scott	5	3	12	1	3	24
Shelby	37	14	62	10	9	132
Spencer	57	32	62	6	11	168
Starke	4	4	3	1	2	14
Steuben	6	4	19	1	2	32
St. Joseph	47	26	76	14	11	174
Sullivan	55	25	43	6	6	135
Switzerland	13	9	19	1	5	47
Tippecanoe	30	42	53	24	7	156
Tipton	59	13	26	11	2	111
Union	9	9	19	4	3	44
Vanderburgh	297	176	335	79	54	941
Vermillion	10	12	17	3	4	46
Vigo	123	135	210	55	51	574
Wabash	31	9	44	4	9	97
Warren	9	8	25	2	4	48
Warrick	44	16	48	10	14	132
Washington	25	19	40	13	21	118
Wayne	101	116	183	42	35	477
Wells	31	9	26	3	2	71
White	21	19	33	15	3	91
Whitley	28	20	44	8	5	105
Total	3,950	2,934	5,485	1,160	1,112	14,641

TABLE No. VI.

BIRTHS.

Showing the number of Births in the State of Indiana, arranged by Counties, Months, Sex, Color, and Nationality, Grouped Ages of Parents, and number of Child of Mother, for the year ending September 30, 1884.

COUNTIES.	1883.						1884.																		TOTALS.		Whole Number.
	Oct.		Nov.		Dec.		Jan.		Feb.		Mar.		Apr.		May		June		July		Aug.		Sept.		Males.	Females.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.			
Adams	12	17	11	7	8	10	21	11	11	4	5	7	11	11	18	17	7	10	13	15	21	12	17	14	155	135	290
Allen	42	26	44	20	27	33	53	47	51	42	37	31	68	41	56	43	58	56	48	47	56	58	69	48	609	492	1,101
Bartholomew	16	19	21	24	26	35	25	24	28	29	17	14	23	19	23	26	15	13	13	16	23	18	25	17	255	254	509
Benton	8	14	6	11	13	10	11	7	10	9	7	11	4	11	9	3	13	10	11	8	13	10	9	12	114	116	230
Blackford	9	9	9	10	13	12	11	12	16	14	7	8	16	9	11	9	4	9	10	14	14	10	8	8	128	124	252
Boone	25	29	30	16	21	36	28	16	31	31	30	33	32	34	19	15	27	26	20	30	24	18	38	32	325	316	641
Brown	6	7	6	7	2	8	12	13	7	9	13	8	11	11	13	7	6	10	9	6	11	12	19	18	115	216	231
Carroll	28	22	16	11	16	8	17	27	23	22	22	20	27	29	21	21	23	20	29	25	29	20	31	26	282	251	533
Cass	23	20	29	16	21	22	28	20	30	20	36	21	17	24	15	18	17	15	24	13	18	29	21	13	279	231	510
Clark	19	10	16	21	32	17	18	14	14	19	23	16	17	17	19	14	20	16	27	14	23	18	36	34	264	210	474
Clay	14	20	25	20	12	19	23	22	29	21	27	24	25	26	11	18	14	19	8	6	14	13	14	15	216	223	439
Clinton	24	18	5	7	3	1	14	16	19	12	7	9	4	8	11	8	3	5	8	9	9	5	4	2	111	100	211
Crawford	22	16	7	8	9	8	23	14	18	7	13	3	25	35	16	15	15	7	17	19	16	12	6	6	187	150	337
Daviess	36	41	22	23	21	19	28	31	18	23	25	27	13	12	21	25	25	18	18	12	27	29	24	32	278	292	570
Dearborn	32	20	16	18	27	17	15	12	12	12	5	19	17	17	23	21	14	16	15	20	14	27	20	10	210	209	419
Decatur	21	21	23	18	17	11	10	14	12	11	29	14	14	13	18	17	11	20	14	9	11	15	8	6	188	169	357
Dekalb	9	10	15	14	7	7	6	12	11	10	11	14	8	7	15	10	12	10	11	19	16	14	20	19	141	146	287
Delaware	21	21	14	16	18	28	31	29	19	25	22	27	28	30	26	19	21	21	34	37	30	38	37	28	301	319	620
Dubois	20	21	16	14	29	23	16	13	31	16	26	28	11	15	20	12	45	32	23	10	25	20	9	16	271	220	491
Elkhart	34	40	18	14	16	5	14	16	21	12	11	17	12	9	16	19	10	15	15	10	10	7	22	18	199	182	381

Fayette	17	12	7	9	11	5	24	26	11	17	16	17	4	5	6	13	12	17	16	18	13	9	7	12	144	160	304
Floyd	21	23	23	21	20	26	23	29	31	21	28	12	18	21	18	25	19	21	20	25	20	14	31	31	272	269	541
Fountain	17	17	12	6	11	7	17	11	13	8	18	14	20	16	8	12	17	14	14	7	8	2	11	8	166	122	288
Franklin	4	3	6	5	12	16	6	3	6	3	8	5	3	4	9	7	5	2	3	6	8	3	3	3	73	60	133
Fulton	6	7	16	15	16	13	8	12	12	8	16	17	6	8	9	6	11	4	11	8	10	6	17	16	138	120	258
Gibson	25	23	18	17	28	18	24	24	29	19	32	16	25	30	22	23	27	22	28	30	35	31	31	34	324	287	611
Grant	13	21	17	5	14	5	33	20	20	27	32	20	33	30	25	14	32	16	7	3	16	11	30	21	272	193	465
Greene	24	18	20	12	12	16	27	16	39	31	26	14	17	22	14	17	18	16	21	21	17	17	26	23	261	223	484
Hamilton	33	33	23	35	16	19	18	22	13	23	37	26	32	35	21	29	38	29	30	34	33	25	51	45	345	355	700
Hancock	19	17	23	12	16	22	27	17	14	16	24	18	15	16	25	17	19	20	21	13	18	21	11	13	232	202	434
Harrison	19	18	22	16	17	16	29	19	18	15	26	21	18	18	11	7	11	16	8	13	12	9	15	15	206	183	389
Hendricks	22	23	17	20	32	36	24	19	16	19	31	20	33	19	32	29	28	21	21	17	38	23	33	22	327	268	595
Henry	15	14	29	25	24	21	25	21	25	22	8	3	43	45	22	18	18	16	26	25	22	17	26	25	283	252	535
Howard	27	25	34	34	28	29	16	23	15	23	27	30	35	23	25	21	28	25	37	26	23	26	29	21	324	306	630
Huntington	28	26	14	20	35	19	28	26	25	25	28	22	27	28	22	23	22	17	25	16	32	19	34	33	320	274	594
Jackson	40	46	19	15	13	13	38	45	12	13	28	14	11	10	24	14	17	18	14	13	10	20	11	9	237	230	467
Jasper	18	13	13	8	7	9	6	12	8	5	12	13	11	6	11	10	13	4	7	9	13	5	6	6	125	100	225
Jay	31	32	16	18	14	13	37	15	30	29	28	21	27	28	19	18	22	10	27	19	20	13	44	42	315	258	573
Jefferson	5	11	10	8	4	11	8	10	11	9	16	9	5	4	10	5	12	9	9	12	6	7	8	7	104	102	206
Jennings	11	15	19	20	24	8	9	19	11	16	25	14	19	8	13	10	7	4	17	7	10	5	4	10	169	136	305
Johnson	22	20	22	23	15	17	27	19	23	19	25	24	18	13	24	22	23	16	27	23	21	22	15	21	262	239	501
Knox	8	9	9	4	4	7	29	15	6	6	8	6	12	6	12	13	5	4	10	9	12	11	10	9	125	99	224
Kosciusko	13	8	12	11	14	10	9	17	11	14	12	15	16	16	14	15	14	9	17	16	16	9	71	59	219	199	418
Lagrange	10	11	11	15	5	15	13	7	13	3	11	9	7	2	4	9	9	4	11	4	12	7	10	4	116	90	206
Lake	12	10	24	11	10	7	19	16	16	18	20	15	3	5	10	12	10	11	11	10	10	14	12	9	157	138	295
Laporte	18	24	16	21	16	16	21	16	23	26	24	28	26	23	24	16	28	19	36	19	28	28	39	20	299	256	555
Lawrence	14	12	14	10	11	6	15	17	10	11	10	6	16	30	20	14	10	12	10	9	8	13	8	12	146	152	298
Madison	33	23	32	20	25	21	39	46	45	35	34	37	46	46	35	40	37	33	34	42	32	40	32	30	424	413	837
Marion	118	103	93	89	116	110	108	111	110	104	88	117	104	94	115	125	101	104	120	126	125	101	103	113	1301	1297	2598
Marshall	9	14	9	6	11	5	8	9	13	9	13	11	16	10	15	10	7	7	11	10	9	5	9	9	130	105	235
Martin	9	9	11	9	21	16	9	10	15	6	10	6	4	2	7	16	10	7	18	3	9	16	8	6	131	106	237
Miami	39	25	16	20	20	19	25	18	24	26	20	19	18	27	21	30	25	34	25	27	29	22	40	34	302	301	603
Monroe	16	14	7	11	21	13	24	17	22	16	19	22	22	16	19	31	18	16	13	14	14	13	14	14	209	179	388
Montgomery	21	25	24	17	22	23	26	22	22	32	20	21	42	28	13	18	25	23	17	30	15	27	22	27	269	293	562
Morgan	19	10	14	6	4	10	19	20	15	6	16	9	8	6	9	5	10	9	14	7	13	22	14	16	155	126	281
Newton	5	4	8	8	7	5	9	5	7	4	12	10	6	8	7	7	10	5	3	6	11	9	9	14	94	85	179
Noble	12	19	13	9	4	17	9	13	21	25	16	15	10	14	6	7	14	10	9	13	10	2	14	18	138	162	300
Ohio	7	7	3	6	5	5	5	5	4	6	4	5	10	3	6	4	4	3	2	3	7	2	2	4	59	53	112
Orange	17	20	17	11	16	12	17	16	4	8	21	9	9	19	12	11	16	21	16	13	11	9	20	17	176	166	342
Owen	13	16	18	13	9	10	7	11	11	14	14	10	10	8	15	9	16	16	13	10	12	13	10	13	148	143	291
Parke	19	10	16	12	28	10	26	20	12	20	16	19	19	9	18	18	17	13	11	17	17	10	17	9	216	167	383
Perry	9	7	9	10	8	7	10	13	11	17	13	13	16	15	15	8	11	7	13	10	14	8	17	13	146	128	274
Pike	21	20	23	13	13	18	23	22	21	21	18	13	19	12	26	13	10	10	17	13	14	12	20	19	225	186	411

TABLE No. VI—Continued.

COUNTIES.	1883.						1884.																		Totals.		Whole Number.
	Oct.		Nov.		Dec.		Jan.		Feb.		Mar.		Apr.		May		June		July		Aug.		Sept.		Males.	Females.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.			
Porter	..	..	..	..	..	..	11	10	11	16	13	7	7	12	10	10	12	9	18	9	14	9	12	6	108	88	196
Posey	27	26	22	20	28	17	54	34	40	26	32	31	21	19	31	18	26	12	33	15	27	27	34	24	375	269	644
Pulaski	13	9	5	1	1	5	10	10	6	7	5	5	5	6	2	6	3	5	12	4	2	1	6	4	70	63	133
Putnam	27	26	19	11	22	9	22	24	24	12	14	13	20	27	9	17	17	12	30	38	16	19	13	9	233	217	450
Randolph	33	34	26	22	33	40	25	29	36	41	37	41	32	25	31	25	30	19	27	33	44	28	53	31	407	368	775
Ripley	26	10	8	12	14	10	14	9	16	12	14	12	11	15	13	13	22	7	13	11	9	12	9	11	169	134	303
Rush	26	31	30	31	24	6	18	15	16	34	19	10	13	16	26	14	25	20	18	26	19	16	20	15	254	234	488
Scott	7	2	3	3	3	..	7	9	2	11	8	10	4	3	7	5	5	6	8	3	8	5	9	8	71	65	139
Shelby	17	27	9	12	18	14	17	11	23	22	9	20	25	20	31	18	25	19	28	14	22	14	28	22	252	213	465
Spencer	26	12	12	13	21	14	11	8	18	14	25	16	32	28	14	14	25	14	12	14	20	21	30	37	246	205	451
Starke	2	2	2	1	..	2	3	3	2	3	..	3	3	4	2	3	3	2	1	4	1	3	1	2	20	32	52
Steuben	16	16	7	3	15	8	6	5	6	3	3	..	1	2	4	5	14	9	6	3	3	15	4	6	85	75	160
St. Joseph	15	20	22	14	24	28	27	22	14	15	16	17	23	15	26	19	11	26	24	23	21	25	21	24	244	248	492
Sullivan	23	14	38	43	16	10	10	17	15	18	21	19	16	21	18	8	22	17	37	23	41	11	47	33	304	234	538
Switzerland	3	12	7	3	3	6	11	8	9	2	4	5	10	16	5	6	5	4	11	11	8	10	5	5	81	88	169
Tippecanoe	28	19	46	53	31	30	37	28	25	29	18	17	18	12	10	14	11	11	10	10	8	16	15	3	257	242	499
Tipton	15	15	13	20	14	18	21	14	4	10	10	13	16	17	15	14	35	23	20	12	19	23	16	18	198	197	395
Union	2	2	2	3	7	2	5	1	4	4	4	..	5	3	3	2	2	3	6	7	7	3	6	2	53	32	85
Vanderburgh	51	52	40	50	46	37	41	48	49	48	61	57	37	34	40	42	39	28	36	42	65	53	51	29	556	520	1,076
Vermillion	2	6	8	10	10	4	4	12	7	6	6	5	13	5	2	4	2	7	19	18	4	8	7	8	84	93	177
Vigo	43	28	39	32	40	50	53	53	60	50	48	27	43	36	52	45	56	35	42	33	45	34	50	47	571	470	1,041
Wabash	20	25	27	14	29	19	28	14	18	13	29	23	23	14	14	14	13	14	18	9	21	15	22	19	262	193	455
Warren	9	9	12	12	5	9	8	3	7	13	11	9	4	9	5	4	5	5	..	..	..	..	..	..	66	73	139
Warrick	25	22	27	17	18	14	13	11	24	15	25	16	16	12	23	12	12	10	12	7	18	17	34	24	247	177	424
Washington	16	11	9	9	9	7	13	13	16	14	14	12	28	27	18	13	16	14	17	17	17	18	19	17	192	172	364
Wayne	46	38	35	42	45	39	42	35	31	38	42	34	35	37	36	36	35	35	33	52	45	33	49	41	474	460	934
Wells	10	9	8	9	8	11	11	6	16	7	14	12	15	18	21	17	12	16	16	12	13	16	16	14	160	147	307
White	16	10	5	10	7	10	16	5	7	10	4	6	17	27	9	10	14	9	11	5	13	10	19	18	138	130	268
Whitley	24	20	23	15	9	12	21	11	23	10	27	11	12	12	19	13	14	7	19	14	12	17	26	16	229	158	387
Total	1848	1725	1632	1456	1597	1450	1887	1692	1758	1646	1817	1567	1746	1658	1670	1511	1677	1450	1724	1570	1759	1562	2003	1749	21,118	19,035	40,153

TABLE No. VI—Continued.

COUNTIES.	No. of Parents.	GROUPED AGES OF PARENTS.																NO. OF CHILD OF EACH MOTHER.												
		Under 20.		20 to 25.		25 to 30.		30 to 35.		35 to 40.		40 to 50.		Father, 50 to 60.	Father, 60 to 70.	Father not reported.	Mother not reported.	First.	Second.	Third.	Fourth.	Fifth.	Sixth.	Seventh.	Eighth.	Ninth.	Tenth.	Eleventh and over.	Not reported.	Total.
		Fa	Mo	Fa	Mo	Fa	Mo	Fa	Mo	Fa	Mo	Fa	Mo																	
Adams	285	2	28	54	88	67	62	67	49	36	31	37	16	4	1	17	11	77	54	40	34	29	13	7	11	9	5	7	4	290
Allen	1090	. .	84	99	235	229	236	196	141	140	97	124	50	16	. .	286	247	314	214	169	99	65	52	34	27	16	20	14	77	1101
Bartholomew	504	1	26	67	141	116	152	118	98	84	57	85	26	14	1	18	4	111	105	85	60	48	35	23	11	11	8	9	3	509
Benton	227	1	17	28	48	39	53	46	44	51	31	41	17	5	. .	16	17	58	38	29	30	19	19	9	8	4	1	6	9	230
Blackford	252	8	17	67	71	57	60	48	47	41	33	23	19	8	. .	. .	5	50	42	39	32	23	27	18	11	5	1	4	. .	252
Boone	638	4	85	126	212	187	134	113	96	92	78	79	26	19	3	15	7	178	132	99	57	58	45	18	10	23	6	11	4	641
Brown	230	2	17	42	80	62	45	46	36	25	37	39	13	8	1	5	2	43	33	37	34	27	18	10	13	8	4	3	1	231
Carroll	523	2	44	68	159	136	127	126	96	79	66	78	22	16	2	16	9	127	118	85	59	42	26	24	15	4	5	10	8	533
Cass	506	6	34	54	116	98	88	73	68	62	31	43	14	10	. .	160	155	133	72	57	39	36	15	12	6	5	1	4	130	510
Clark	471	. .	23	59	137	118	121	101	103	107	61	50	22	14	2	20	14	112	110	70	66	40	26	19	13	7	3	6	1	474
Clay	435	1	50	66	119	124	90	78	73	59	45	77	18	7	. .	53	40	94	85	63	37	45	29	24	11	8	5	15	23	439
Clinton	209	1	23	26	56	56	50	50	31	29	27	26	13	7	. .	14	9	54	40	33	26	14	15	11	3	3	5	2	5	211
Crawford	337	2	45	65	97	70	83	66	50	53	36	37	16	15	2	27	10	91	62	52	30	29	30	18	14	3	5	2	1	337
Daviess	567	4	63	85	173	156	150	123	78	84	65	73	28	15	4	23	10	139	115	81	68	50	37	22	13	18	9	8	10	570
Dearborn	418	2	22	69	111	109	119	81	68	64	52	49	23	13	1	30	23	104	78	66	52	34	30	11	17	5	6	9	7	419
Decatur	352	. .	26	54	104	105	93	66	63	54	46	48	13	13	3	9	7	82	81	58	34	24	30	16	9	8	7	4	4	357
Dekalb	283	. .	26	42	85	80	74	76	49	35	24	29	12	4	. .	17	13	86	76	48	25	17	10	5	3	1	. .	3	13	287
Delaware	608	3	62	102	214	163	156	142	101	97	46	61	19	14	3	23	10	140	150	80	65	64	47	32	15	8	9	6	4	620
Dubois	490	2	22	58	133	125	146	121	84	87	72	80	30	7	2	8	3	107	69	68	62	43	49	36	22	18	7	7	3	491
Elkhart	372	6	43	68	84	87	91	80	57	54	30	36	11	6	. .	35	56	119	61	63	44	27	22	14	10	10	3	5	3	381
Fayette	300	. .	26	54	105	94	73	67	53	44	26	25	14	7	. .	9	3	74	70	64	37	20	16	8	11	4	. .	. .	. .	304
Floyd	534	5	34	73	146	159	151	115	101	80	57	66	31	16	. .	20	14	162	108	67	59	34	37	17	21	6	12	5	13	541
Fountain	283	. .	29	39	87	87	68	40	39	40	28	46	24	16	4	11	8	82	53	37	38	21	16	18	7	4	6	5	1	288
Franklin	133	. .	7	16	36	28	37	32	30	22	13	22	5	2	1	10	5	40	20	22	17	8	9	6	2	3	1	5	. .	133
Fulton	258	24	2	87	49	63	81	34	46	28	36	17	37	2	. .	3	7	82	55	48	25	18	13	6	5	2	2	2	2	258
Gibson	597	2	65	97	189	160	137	128	195	86	67	81	27	18	1	24	7	169	118	75	69	53	34	32	29	7	11	9	5	611
Grant	455	1	59	107	143	109	111	94	64	68	54	42	18	16	. .	18	6	120	86	73	42	43	26	19	16	11	4	7	18	465
Greene	481	1	50	70	127	119	108	79	86	68	62	89	44	12	5	38	4	107	91	66	57	45	37	28	18	7	8	8	12	484
Hamilton	690	4	64	127	219	171	135	130	124	98	80	97	41	19	3	41	27	179	122	106	86	61	45	37	28	16	12	10	8	700
Hancock	434	13	29	93	149	106	101	86	79	63	39	46	30	17	1	9	7	88	83	73	49	38	29	34	16	8	3	5	8	434

TABLE No. VI—Continued.

COUNTIES.	No. of Parent.	Grouped Ages of Parents.																No. of Child of Each Mother.												
		Under 20.		20 to 25.		25 to 30.		30 to 35.		35 to 40.		40 to 50.		Father 50 to 60.	Father 60 to 70.	Father not reported.	Mother not reported.	First.	Second.	Third.	Fourth.	Fifth.	Sixth.	Seventh.	Eighth.	Ninth.	Tenth.	Eleventh and over.	Not reported.	Total.
		Fa	Mo	Fa	Mo	Fa	Mo	Fa	Mo	Fa	Mo	Fa	Mo																	
Harrison	383	3	28	72	105	83	77	69	67	50	66	71	30	13	4	18	10	94	64	52	42	26	36	18	17	9	8	10	13	389
Hendricks	588	4	57	74	164	166	148	128	102	84	64	91	38	17	3	21	15	161	110	105	57	51	37	31	18	7	3	9	6	595
Henry	529	3	50	81	149	136	129	121	93	78	68	79	30	19	4	8	10	136	106	95	51	35	30	34	10	13	5	12	8	535
Howard	619	4	75	129	196	164	158	123	101	92	59	73	20	12	3	19	10	170	138	93	77	47	32	27	16	9	3	13	5	630
Huntington	586	1	37	66	178	175	172	137	89	91	65	88	29	10	3	16	16	150	119	108	65	50	18	25	24	14	7	6	8	594
Jackson	460	4	51	78	131	115	111	105	87	65	44	57	22	18	1	17	14	89	98	69	60	44	32	26	19	6	2	8	14	467
Jasper	223	2	24	26	70	53	56	56	42	33	21	34	5	7	2	10	5	63	45	32	27	14	17	11	4	4	4	3	1	225
Jay	570	3	55	93	163	143	123	112	93	87	60	65	30	9	. .	58	46	143	113	111	57	46	25	25	12	12	11	6	12	573
Jefferson	202	2	10	14	38	34	46	36	34	30	19	31	10	6	1	48	45	35	39	36	29	18	17	9	5	2	2	5	9	206
Jennings	301	1	19	36	89	81	74	62	59	50	37	45	19	17	4	5	4	76	63	47	28	25	21	16	8	6	5	*7	3	305
Johnson	495	4	49	76	156	139	126	116	95	67	48	72	21	13	4	4	. .	142	107	87	52	38	28	19	7	11	2	8	. .	501
Knox	221	1	14	18	47	56	57	45	35	27	20	27	10	6	. .	41	38	51	48	37	23	17	12	12	6	2	5	10	2	224
Kosciusko	416	2	38	75	142	118	110	92	63	54	39	53	14	11	. .	11	10	120	96	72	42	24	22	12	10	9	5	2	4	418
Lagrange	204	4	24	40	68	65	54	27	25	33	15	12	2	5	1	17	16	62	52	35	24	13	6	4	4	1	2	2	1	206
Lake	293	. .	29	51	92	84	72	60	48	43	29	30	5	4	1	20	18	84	45	48	29	27	17	9	14	8	2	7	5	295
Laporte	553	11	27	105	163	150	158	127	95	71	59	56	28	10	3	20	23	171	105	97	61	40	32	20	6	12	1	5	5	555
Lawrence	296	1	27	42	77	69	82	69	53	49	39	48	16	7	4	7	2	61	65	41	37	31	15	10	15	14	5	4	. .	298
Madison	823	4	102	149	253	220	195	174	129	129	83	93	30	18	1	25	31	222	174	117	108	63	44	44	23	17	8	*8	9	837
Marion	2575	5	185	430	763	760	710	544	432	382	323	258	90	53	6	137	72	765	498	392	308	183	152	98	50	46	35	27	44	2598
Marshall	234	2	24	33	68	73	67	48	32	28	26	30	9	12	. .	8	8	68	55	41	20	14	15	7	3	6	2	. .	4	235
Martin	230	. .	10	41	79	63	64	47	40	37	16	26	9	6	1	9	12	59	39	43	23	24	14	15	8	3	2	3	4	237
Miami	597	4	78	93	151	138	136	123	83	70	49	68	16	10	2	89	84	160	116	101	58	41	26	25	9	6	6	7	48	603
Monroe	382	1	29	55	112	105	105	85	62	59	45	42	20	14	1	20	9	81	68	68	47	42	24	19	10	11	5	7	6	388
Montgomery	556	2	50	80	172	151	149	135	95	80	51	69	32	10	5	24	7	160	128	79	68	51	25	15	15	6	1	*10	4	562
Morgan	274	2	22	43	62	63	57	55	56	33	29	22	9	4	3	49	39	61	56	46	35	19	17	7	14	10	3	7	6	281
Newton	178	. .	6	22	52	30	39	29	22	28	17	19	7	8	1	41	35	42	30	41	26	10	8	8	2	3	2	1	6	179
Noble	294	6	19	50	73	85	81	61	49	48	36	26	25	4	1	13	11	94	54	37	37	18	26	15	10	. .	1	2	6	300
Ohio	112	1	7	14	37	32	28	28	20	18	14	17	5	2	. .	. .	1	29	22	21	11	11	6	6	2	1	2	1	. .	112
Orange	341	4	23	69	110	77	85	76	52	51	36	41	18	6	1	16	17	86	65	46	32	26	31	10	12	7	3	3	21	342
Owen	284	4	33	55	91	78	67	46	38	32	29	30	12	4	2	33	14	70	60	45	38	25	16	14	6	5	2	4	6	291

Parke	374	2	21	42	96	85	70	63	72	66	51	54	18	6	3	53	46	109	65	55	34	32	20	16	13	13	7	1	18	383
Perry	274	. .	24	55	90	61	62	50	36	38	32	32	16	14	2	22	14	63	59	38	28	28	22	13	6	7	4	2	4	274
Pike	409	12	43	77	96	91	93	83	67	63	48	49	38	12	1	21	24	85	63	73	45	42	26	28	19	6	11	12	1	411
Porter	195	. .	8	22	52	45	29	38	35	27	13	25	12	3	1	34	46	48	55	30	20	11	10	5	6	7	1	. .	3	196
Posey	630	1	52	92	195	174	173	124	105	105	58	88	39	26	5	9	6	165	133	88	66	55	43	34	18	15	7	13	7	644
Pulaski	133	1	22	20	38	34	20	21	20	32	25	20	6	2	1	2	2	38	25	15	15	7	10	5	4	4	7	2	1	133
Putnam	446	. .	40	60	108	93	114	103	99	85	51	75	28	15	1	14	6	111	80	61	48	56	25	31	16	7	8	4	3	450
Randolph	770	1	76	180	224	222	205	176	116	114	78	102	39	15	4	6	2	201	161	111	87	65	51	38	18	16	8	11	8	775
Ripley	302	1	19	30	80	78	59	73	63	47	54	55	22	12	3	3	5	62	52	48	33	29	22	20	8	17	7	5	. .	303
Rush	479	1	44	58	157	138	115	101	85	79	49	67	19	14	3	18	10	139	96	61	58	48	34	19	9	8	2	9	5	488
Scott	136	3	6	21	27	26	23	47	37	24	26	9	9	4	1	1	8	31	29	24	17	14	8	4	5	3	1	. .	. .	136
Shelby	460	18	25	93	113	107	101	75	70	50	46	49	38	6	4	58	67	131	84	76	46	29	21	25	17	7	8	4	17	465
Spencer	448	1	29	51	137	105	111	112	78	70	50	69	37	19	3	18	6	62	87	74	46	48	24	22	20	9	13	11	5	451
Starke	51	2	6	18	8	7	16	9	9	3	5	2	1	1	. .	9	6	21	9	3	9	5	1	2	. .	. .	. .	1	1	52
Steuben	160	1	9	15	49	46	40	38	17	16	16	19	5	2	. .	23	24	30	21	15	10	8	3	4	2	2	. .	. .	65	160
St. Joseph	480	1	37	58	141	160	143	100	60	66	52	65	21	7	1	22	26	135	126	76	41	36	29	13	13	2	7	7	7	492
Sullivan	535	24	105	98	139	134	117	103	90	79	40	49	21	20	7	21	23	103	96	87	65	54	36	31	28	12	10	3	13	538
Switzerland	166	1	8	20	41	49	45	34	28	22	20	21	2	4	. .	15	22	40	43	26	13	15	11	8	2	1	1	2	7	169
Tippecanoe	496	1	28	59	160	124	129	114	70	81	53	55	19	10	2	50	37	124	100	76	48	37	23	15	8	9	4	8	47	499
Tipton	390	1	38	49	112	99	97	93	57	57	43	52	23	13	2	24	20	93	72	79	46	30	35	12	7	7	4	4	6	395
Union	84	. .	9	22	26	27	23	16	15	9	4	6	2	. .	. .	4	5	22	19	14	8	7	6	6	. .	2	1	. .	. .	85
Vanderburgh	1066	2	49	118	275	265	295	243	193	173	138	166	66	29	5	65	50	268	198	146	128	103	60	40	46	28	21	16	22	1076
Vermillion	175	1	22	22	56	51	27	26	24	31	16	18	9	6	. .	20	21	48	53	18	18	10	8	5	5	3	2	. .	7	177
Vigo	1017	. .	67	128	282	254	279	216	186	169	100	145	35	23	3	79	68	296	190	172	123	86	58	45	13	24	6	10	18	1041
Wabash	450	1	32	68	141	124	126	93	69	72	52	62	18	9	5	16	12	118	89	67	61	43	19	25	9	9	6	4	5	455
Warren	. . .	. .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Warrick	423	. .	33	71	110	97	96	81	70	44	55	73	27	17	. .	40	32	98	73	78	48	42	28	15	17	8	7	6	4	424
Washington	360	1	33	50	87	76	73	83	74	49	48	66	28	11	. .	24	17	81	45	50	44	26	45	17	11	13	7	6	19	364
Wayne	922	3	66	118	263	255	246	192	187	156	115	147	42	30	1	20	3	270	170	164	99	70	62	38	20	17	8	10	6	934
Wells	306	4	32	57	92	96	89	68	46	36	37	36	11	9	. .	. .	. .	85	82	49	32	23	12	6	7	5	5	1	. .	307
White	263	2	17	29	72	70	73	55	59	46	27	47	13	9	. .	5	2	57	48	44	42	18	14	17	11	8	5	4	. .	268
Whitley	385	1	25	56	116	100	116	91	60	68	42	51	23	10	30	5	83	89	84	74	40	38	20	14	10	8	7	2	1	387
Total	39556	269	3349	6085	11357	10279	9875	8278	6677	5906	4367	5063	1977	1033	163	2490	1975	10290	7826	6187	4422	3263	2424	1731	1112	779	498	546	936	40153

*13th—2 children.
16th—1 child.
18th—1 child.

TABLE No. VI—Continued.

BIRTHS—Continued.

Showing the number of Births in the State of Indiana, arranged by Counties, Months, Sex, Color, and Nationality, Grouped Ages of Parents, and Number of Child of Mother, for the year ending September 30, 1884.

COUNTIES.	COLOR.				* PARENTAGE OF CHILDREN.				
	White.		Colored.		American.	Foreign.	Am. Father. For. Mother.	For. Father. Am. Mother.	Not Rep'd'
	M.	F.	M.	F.					
Adams	155	135	...	...	227	20	15	12	11
Allen	608	491	1	1	587	196	20	98	189
Bartholomew	250	250	5	4	441	18	4	31	10
Benton	114	115	...	1	146	34	7	25	15
Blackford	128	124	...	...	252	....	...	....	....
Boone	325	316	...	...	509	4	1	1	123
Brown	115	116	...	...	215	7	2	....	6
Carroll	282	251	...	...	490	10	3	10	10
Cass	277	228	2	3	394	73	6	14	19
Clark	254	200	10	10	372	51	14	29	5
Clay	214	218	2	5	287	67	12	27	42
Clinton	111	100	...	...	200	6	...	2	1
Crawford	187	150	...	...	42	....	1	....	294
Daviess	274	291	4	1	519	17	3	14	14
Dearborn	210	209	...	...	....	....	...	....	418
Decatur	187	167	1	2	318	27	2	2	3
Dekalb	141	146	...	...	231	11	4	29	18
Delaware	301	318	...	1	585	19	1	11	1
Dubois	271	220	...	...	408	24	6	35	17
Elkhart	199	182	...	...	347	17	2	1	5
Fayette	141	152	3	8	260	30	4	6	....
Floyd	266	265	6	4	382	48	11	53	40
Fountain	165	122	1	...	262	3	2	9	7
Franklin	73	60	...	...	97	6	9	5	16
Fulton	138	120	...	...	255	3	...	....	....
Gibson	313	275	11	12	551	14	2	6	24
Grant	266	193	6	...	429	6	2	7	11
Greene	260	222	1	1	453	3	1	4	20
Hamilton	330	348	15	7	654	6	6	5	19
Hancock	232	202	...	...	434	....	...	....	....
Harrison	201	181	5	2	320	29	8	14	8
Hendricks	326	268	1	...	572	2	3	3	8
Henry	279	246	4	6	493	2	2	7	25
Howard	321	300	3	6	456	1	...	....	162
Huntington	320	273	...	...	509	22	4	16	35
Jackson	237	229	...	1	380	17	16	16	31
Jasper	125	100	...	...	184	13	8	17	1
Jay	312	255	3	3	489	13	7	11	50
Jefferson	94	98	10	4	163	4	...	6	29
Jennings	166	131	3	5	264	16	3	13	5

TABLE No. VI—Contiunued.

COUNTIES.	COLOR.				* PARENTAGE OF CHILDREN.				
	White.		Colored.		American.	Foreign.	Am. Father. For. Mother.	For. Father. Am. Mother.	Not Rep'd.
	M.	F.	M.	F.					
Johnson	256	235	6	4	484	5	1	5	....
Knox	124	98	1	1	158	22	...	1	40
Kosciusko	219	199	...	...	399	2	2	5	8
Lagrange	116	90	...	...	46	2	...	....	156
Lake	157	138	...	...	148	82	19	20	24
Laporte	299	256	...	...	248	236	19	36	14
Lawrence	144	152	2	..	276	13	1	3	3
Madison	422	409	2	4	776	7	5	17	18
Marion	1,195	1,200	106	97	1,611	531	72	139	222
Marshall	130	105	...	...	204	6	4	14	6
Martin	131	106	...	...	222	5	...	1	2
Miami	302	298	...	3	457	25	3	22	90
Monroe	197	174	12	5	374	2	1	5	....
Montgomery	265	287	4	6	520	17	2	5	12
Morgan	154	125	1	1	274	....	...	....	....
Newton	94	84	...	1	110	18	5	18	27
Noble	138	162	...	...	356	23	1	8	6
Ohio	58	52	1	1	88	5	7	12	....
Orange	176	166	...	...	146	....	...	1	194
Owen	146	143	2	...	267	15	1	1	....
Parke	207	160	9	7	355	11	...	1	7
Perry	145	128	1	...	234	35	3	1	1
Pike	225	186	...	...	384	7	2	6	10
Porter	108	88	...	...	34	75	...	....	86
Posey	368	265	7	4	538	34	8	44	6
Pulaski	70	63	...	...	123	4	5	1	....
Putnam	227	213	6	4	419	17	3	5	2
Randolph	398	362	9	6	767	1	...	....	2
Ripley	169	134	...	...	239	55	1	1	6
Rush	243	228	11	6	414	20	6	13	26
Scott	71	65	...	...	134	1	...	1	....
Shelby	251	211	1	2	281	20	7	16	136
Spencer	237	191	9	11	380	29	4	23	12
Starke	20	32	...	...	46	....	1	...	4
Steuben	85	75	...	...	107	3	1	....	49
St. Joseph	241	245	3	3	305	87	15	30	43
Sullivan	304	233	...	1	418	1	...	1	115
Switzerland	81	87	...	1	113	4	1	2	46
Tippecanoe	254	240	3	2	360	86	7	13	30
Tipton	196	197	2	...	332	6	1	15	36
Union	53	32	...	..	76	4	1	1	2
Vanderburgh	492	453	64	67	698	209	42	76	41
Vermillion	84	93	...	...	140	3	2	1	29
Vigo	559	460	12	10	825	89	11	82	10
Wabash	262	193	...	...	420	6	1	6	9
Warren	66	73	...	...	135	....	...	2	2
Warrick	244	177	3	...	349	19	5	12	38
Washington	192	172	...	...	353	....	...	....	7
Wayne	446	433	28	27	748	86	14	48	26
Wells	160	147	...	...	261	42	1	2	....
White	138	130	...	...	243	9	1	5	5
Whitley	228	158	1	...	347	10	2	22	4
Total	20,715	18,675	403	362	31,827	2,819	479	1,272	3,308

* Allowance made here for the plurality births.

TABLE No. VII.

STILL-BIRTHS.

Showing total number of Still-Births occurring in the State of Indiana, with Sex, Nationality and Color of Mother, for the year ending September 30, 1884.

COUNTIES.	Whole Number of Still-Births.	Sex.		Nationality of Mother.			Color of Mother.		
		Male.	Female.	American.	Foreign.	Not Rep'd.	White.	Black.	Not Rep'd.
Adams	8	6	2	7	1	...	8	...	...
Allen	50	37	13	41	9	...	50	...	...
Bartholomew	12	8	4	7	1	4	12	...	...
Benton	14	7	7	10	4	...	14	...	...
Blackford	...	...	...	...	...	...	...	...	...
Boone	6	3	3	6	...	...	6	...	...
Brown	3	1	2	3	...	...	3	...	...
Carroll	*7	5	3	7	...	...	7	...	...
Cass	7	4	3	7	...	...	7	...	...
Clark	16	10	6	10	4	2	8	2	6
Clay	12	10	2	7	5	...	12	...	...
Clinton	8	4	4	8	...	...	8	...	...
Crawford	5	3	2	...	...	5	...	...	5
Daviess	13	7	6	13	...	...	11	2	...
Dearborn	6	3	3	...	...	6	6	...	...
Decatur	15	9	6	5	8	2	13	2	...
Dekalb	18	10	8	14	...	4	18	...	...
Delaware	13	10	3	13	...	...	13	...	...
Dubois	7	6	1	6	1	...	5	...	2
Elkhart	4	1	3	4	...	...	4	...	...
Fayette	15	6	9	12	2	1	12	...	3
Floyd	14	8	6	10	2	2	12	...	2
Fountain	17	11	6	14	2	1	14	2	1
Franklin	2	2	...	1	1	...	2	...	...
Fulton	1	1	...	...	...	1	...	...	1
Gibson	17	11	6	16	1	...	11	2	4
Grant	13	9	4	13	...	...	13	...	...
Greene	13	10	3	13	...	...	13	...	...
Hamilton	7	2	5	6	1	...	7	...	...
Hancock	1	1	...	1	...	...	1	...	...
Harrison	7	5	2	4	...	3	5	...	2
Hendricks	*22	14	9	20	2	...	19	...	3
Henry	13	7	6	13	...	...	12	1	...
Howard	18	9	9	11	6	1	11	6	1
Huntington	17	12	5	8	6	3	7	9	1
Jackson	18	11	7	10	3	5	12	...	6
Jasper	5	3	2	3	...	2	3	...	2
Jay	17	11	6	15	1	1	15	...	2
Jefferson	2	1	1	1	...	1	2	...	...
Jennings	7	3	4	6	...	1	4	...	3

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*Twins.

TABLE No. VII—Continued.

COUNTIES.	Whole Number of Still-Births.	Sex.		Nationality of Mother.			Color of Mother.		
		Male.	Female.	American.	Foreign.	Not Rep'd.	White.	Black.	Not Rep'd.
Johnson	*15	10	6	12	1	2	10	2	3
Knox	9	5	4	6	...	3	9	...	...
Kosciusko	9	5	4	9	...	...	9	...	...
Lagrange	...	...	...	...	...	...	...	...	...
Lake	3	1	2	2	1	...	1	...	2
Laporte	*13	7	7	8	2	3	10	...	3
Lawrence	2	2	4	6	...	...	6	...	...
Madison	20	13	7	18	2	...	19	1	...
Marion	103	59	44	77	11	15	67	21	15
Marshall	*2	3	1	1	...	1	1	...	1
Martin	5	5	...	4	1	...	5	...	...
Miami	13	5	8	12	1	...	13	...	...
Monroe	9	7	2	8	...	1	8	...	1
Montgomery	*13	11	4	13	...	...	13	...	...
Morgan	*8	5	4	8	...	...	7	1	...
Newton	8	4	4	5	1	2	1	6	1
Noble	6	5	1	4	...	2	4	...	2
Ohio	...	...	...	...	...	...	...	...	...
Orange	4	3	1	4	...	...	4	...	...
Owen	4	3	1	3	...	1	3	...	1
Parke	8	4	4	8	...	...	6	2	...
Perry	2	1	1	2	...	...	2	...	...
Pike	5	3	2	5	...	...	5	...	...
Porter	...	...	...	...	...	...	...	...	...
Posey	*15	10	6	15	...	...	14	1	...
Pulaski	5	5	...	5	...	...	5	...	...
Putnam	27	15	12	24	3	...	23	4	...
Randolph	8	7	1	8	...	...	7	...	1
Ripley	2	1	1	1	1	...	2	...	...
Rush	6	4	2	4	1	1	4	1	1
Scott	...	...	...	...	...	...	...	...	...
Shelby	*10	6	5	9	1	...	9	...	1
Spencer	10	6	4	10	...	...	6	...	4
Starke	...	...	...	...	...	...	...	...	...
Steuben	2	2	...	*2	...	...	2	...	...
St. Joseph	26	18	8	17	2	7	24	2	...
Sullivan	17	7	10	...	...	17	9	...	8
Switzerland	2	1	1	1	1	...	1	...	1
Tippecanoe	19	11	8	18	...	1	17	1	1
Tipton	11	5	6	11	...	...	11	...	...
Union	1	1	...	...	...	1	...	...	1
Vanderburgh	64	48	16	33	13	18	36	15	13
Vermillion	*3	1	3	2	1	...	3	...	...
Vigo	30	18	12	16	9	5	20	8	2
Wabash	*6	5	2	2	...	4	2	2	2
Warren	...	...	...	...	...	...	...	...	...
Warrick	16	9	7	16	...	...	16	...	...
Washington	1	...	1	1	...	...	1	...	...
Wayne	19	9	10	17	2	...	16	3	...
Wells	11	8	3	11	...	...	10	1	...
White	4	2	2	3	1	...	4	...	...
Whitley	4	1	3	4	...	...	4	...	...
Total	1,034	642	405	790	115	129	829	97	108

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* Twins.

TABLE No. VII—Continued.

ILLEGITIMATE BIRTHS.

Showing total number of Illegitimate Births in the State of Indiana, with Sex, and Nationality and Color of Mother, for the year ending September 30, 1884.

COUNTIES.	Whole No. Illegitimate Births.	Sex.		Nationality of Mother.			Color of Mother.		
		Male.	Female.	American.	Foreign.	Not Rep'd.	White.	Black.	Not Rep'd.
Adams	3	1	2	2	1	...	3	...	...
Allen	32	21	11	27	3	2	32	...	...
Bartholomew	8	3	5	6	2	...	8	...	...
Benton	3	1	2	3	...	...	3	...	...
Blackford†	...	...	...	...	...	...	...	...	...
Boone	7	3	4	7	...	...	3	1	3
Brown	6	3	3	6	...	...	6	...	...
Carroll	7	3	4	6	...	1	7	...	...
Cass	1	1	...	1	...	...	1	...	...
Clark	7	5	2	7	...	...	7	...	...
Clay	6	3	3	6	...	...	6	...	...
Clinton	1	...	1	1	...	...	1	...	...
Crawford	6	4	2	...	...	6	2	...	4
Daviess	11	5	6	11	...	...	11	...	...
Dearborn	1	1	...	...	...	1	1	...	...
Decatur	5	3	2	5	...	...	4	1	...
Dekalb†	...	...	...	...	...	...	...	...	...
Delaware	14	9	5	14	...	...	14	...	...
Dubois	4	4	...	4	...	...	4	...	...
Elkhart	5	5	...	5	...	...	5	...	...
Fayette	6	3	3	6	...	...	6	...	...
Floyd	8	5	3	7	...	1	6	1	1
Fountain	4	3	1	4	...	...	4	...	...
Franklin†	...	...	...	...	...	...	...	...	...
Fulton†	...	...	...	...	...	...	...	...	...
Gibson	8	4	4	8	...	...	8	...	...
Grant	9	5	4	9	...	...	9	...	...
Greene	21	11	10	21	...	...	21	...	...
Hamilton	11	4	7	10	1	...	10	1	...
Hancock†	...	...	...	...	...	...	...	...	...
Harrison	3	2	1	2	...	1	2	...	1
Hendricks	10	6	4	10	...	...	10	...	...
Henry	10	3	7	10	...	...	10	...	...
Howard	12	6	6	12	...	...	11	1	...
Huntington	3	3	...	3	...	...	2	...	1
Jackson	11	8	3	10	1	...	10	...	1
Jasper	3	2	1	3	...	...	3	...	...
Jay	8	6	2	8	...	...	7	1	...
Jefferson†	...	...	...	...	...	...	...	...	...
Jennings	3	1	2	3	...	...	2	1	...

TABLE No. VII—Continued.

COUNTIES.	Whole No. Illegitimate Births.	Sex.		Nationality of Mother.			Color of Mother.		
		Male.	Female.	American.	Foreign.	Not Rep'd.	White.	Black.	Not Rep'd.
Johnson	*6	5	2	6	...	...	5	1	...
Knox	4	2	2	4	...	...	4	...	...
Kosciusko	2	1	1	2	...	...	2	...	...
Lagrange	3	2	1	3	...	...	3	...	...
Lake	7	3	4	6	1	...	5	...	2
Laporte	3	1	2	3	...	...	3	...	...
Lawrence	5	3	2	5	...	...	5	...	...
Madison	26	10	16	26	...	...	26	...	...
Marion	67	39	28	65	2	...	52	15	...
Marshall†	...	...	...	...	...	...	...	...	...
Martin	5	4	1	5	...	...	5	...	...
Miami	7	5	2	7	...	...	7	...	...
Monroe	9	7	2	9	...	...	8	1	...
Montgomery	7	5	2	7	...	...	6	1	...
Morgan	3	3	...	3	...	...	3	...	...
Newton†	...	...	...	...	...	...	...	...	...
Noble	2	1	1	2	...	...	2	...	...
Ohio†	...	...	...	...	...	...	...	...	...
Orange	5	4	1	5	...	...	5	...	...
Owen	1	1	...	1	...	...	1	...	...
Parke	8	5	3	8	...	...	8	...	...
Perry†	...	...	...	...	...	...	...	...	...
Pike	6	4	2	6	...	...	6	...	...
Porter	1	...	1	1	...	...	1	...	...
Posey	5	3	2	5	...	...	5	...	...
Pulaski	1	1	...	...	...	1	...	...	1
Putnam	5	5	...	4	1	...	5	...	...
Randolph	6	2	4	6	...	...	2	4	...
Ripley	1	...	1	1	...	...	1	...	...
Rush	7	5	2	7	...	...	3	4	...
Scott†	...	...	...	...	...	...	...	...	...
Shelby	1	1	...	1	...	...	1	...	...
Spencer	13	6	7	12	...	1	10	...	3
Starke†	...	...	...	...	...	...	...	...	...
Steuben†	...	...	...	...	...	...	...	...	...
St. Joseph	5	4	1	5	...	...	5	...	...
Sullivan	2	1	1	...	...	2	...	...	2
Switzerland†	...	...	...	...	...	...	...	...	...
Tippecanoe	7	3	4	6	...	1	6	...	1
Tipton	5	4	1	5	...	...	5	...	...
Union	2	1	1	2	...	...	2	...	...
Vanderburgh	10	8	3	7	2	2	7	2	2
Vermillion	4	2	2	4	...	...	4	...	...
Vigo	25	9	16	25	...	...	25	...	...
Wabash	1	1	...	1	...	...	1	...	...
Warren	2	1	1	2	...	...	2	...	...
Warrick	3	2	1	2	...	1	3	...	...
Washington†	...	...	...	...	...	...	...	...	...
Wayne	26	12	14	25	1	...	23	3	...
Wells†	...	...	...	...	...	...	...	...	...
White	5	...	5	5	...	...	5	...	...
Whitley	3	2	1	3	...	...	3	...	...
Total	573	325	245	538	15	20	513	38	22

† Not reported. * Twins.

TABLE No. VII—Continued.

PLURALITY BIRTHS.

Showing total number of Plurality Births occurring in the State of Indiana, with Sex, and Nationality, and Color of Mother, for the year ending September 30, 1884.

COUNTIES.	Whole No. of Plurality Births.	Sex.		Nationality of Mother.			Color of Mother.		
		Male.	Female.	American.	Foreign.	Not Rep'd.	White.	Black.	Not Rep'd.
Adams	5	6	4	5	...	...	5	...	...
Allen	11	12	10	8	3	...	11	...	...
Bartholomew	5	5	5	3	...	2	2	...	3
Benton	3	2	4	3	...	...	3	...	...
Blackford	...	...	...	...	...	...	...	...	...
Boone	3	2	4	3	...	...	3	...	...
Brown	1	2	...	1	...	...	1	...	...
Carroll	*10	12	9	9	1	...	10	...	...
Cass	4	4	4	4	...	...	4	...	...
Clarke	3	5	1	3	...	...	3	...	...
Clay	4	7	1	3	1	...	4	...	...
Clinton	2	2	2	2	...	...	2	...	...
Crawford †	...	...	...	...	...	...	...	...	...
Daviess	3	3	3	3	...	...	2	1	...
Dearborn	1	1	1	...	...	1	1	...	...
Decatur	5	4	6	5	...	...	5	...	...
Dekalb	4	4	4	2	2	...	4	...	...
Delaware	12	12	12	12	...	...	12	...	...
Dubois	1	1	1	1	...	...	1	...	...
Elkhart	9	9	9	8	1	...	9	...	...
Fayette	4	2	6	4	...	...	4	...	...
Floyd	7	7	7	6	1	...	7	...	...
Fountain	5	4	6	5	...	...	5	...	...
Franklin †	...	...	...	...	...	...	...	...	...
Fulton †	...	...	...	...	...	...	...	...	...
Gibson	14	15	13	13	1	...	14	...	...
Grant	10	11	9	10	...	...	10	...	...
Greene	3	3	3	3	...	...	3	...	...
Hamilton	10	11	9	10	...	...	10	...	...
Hancock †	...	...	...	...	...	...	...	...	...
Harrison	6	6	6	6	...	...	5	1	...
Hendricks	7	6	8	7	...	...	7	...	...
Henry	6	5	7	6	...	...	6	...	...
Howard	11	13	9	11	...	...	11	...	...
Huntington	8	8	8	8	...	...	5	...	3
Jackson	7	10	4	7	...	...	7	...	...
Jasper	2	3	1	2	...	...	2	...	...
Jay	3	2	4	3	...	...	3	...	...
Jefferson	4	1	7	3	...	1	3	...	1
Jennings	*4	7	2	4	...	...	4	...	...

TABLE No. VII—Continued.

COUNTIES.	Whole No. of Plurality Births.	Sex.		Nationality of Mother.			Color of Mother.		
		Male.	Female.	American.	Foreign.	Not Rep'd.	White.	Black.	Not Rep'd.
Johnson	6	7	5	6	...	...	6	...	...
Knox	3	3	3	2	1	...	3	...	...
Kosciusko	2	4	...	2	...	...	2	...	...
Lagrange	2	1	3	2	...	...	2	...	...
Lake	2	4	...	1	1	...	2	...	...
Laporte	2	...	4	2	...	...	2	...	...
Lawrence	2	2	2	2	...	...	2	...	...
Madison	14	12	16	13	1	...	14	...	...
Marion	23	27	19	23	...	...	19	4	...
Marshall	1	1	1	1	...	...	1	...	...
Martin	7	11*	3	6	1	...	7	...	...
Miami	6	3	9	5	1	...	6	...	...
Monroe	6	8	4	6	...	...	6	...	...
Montgomery	6	7	5	6	...	...	6	...	...
Morgan	7	6	8	7	...	...	7	...	...
Newton	1	2	...	1	...	...	1	...	...
Noble	6	5	7	6	...	...	6	...	...
Ohio†	...	...	...	...	...	...	...	...	...
Orange	1	1	1	1	...	...	1	...	...
Owen	*7	6	9	5	...	2	5	...	2
Parke	*9	7	12	9	...	...	8	1	...
Perry †	...	...	...	...	...	...	...	...	...
Pike	2	1	3	2	...	...	2	...	...
Porter	1	1	1	...	1	...	1	...	...
Posey	14	16	12	13	1	...	14	...	...
Pulaski †	...	...	...	...	...	...	...	...	...
Putnam	4	3	5	4	...	...	4	...	...
Randolph	5	6	4	5	...	...	5	...	...
Ripley	1	2	...	1	...	...	1	...	...
Rush	9	8	10	9	...	...	8	1	...
Scott †	...	...	...	...	...	...	...	...	...
Shelby	5	6	4	5	...	...	5	...	...
Spencer	3	4	2	1	2	...	...	...	3
Starke	1	2	...	1	...	...	1	...	...
Steuben†	...	...	...	...	...	...	...	...	...
St. Joseph	12	12	12	11	1	...	12	...	...
Sullivan	3	2	4	...	...	3	...	...	3
Switzerland	3	2	4	3	...	...	3	...	...
Tippecanoe	3	3	3	3	...	...	3	...	...
Tipton	5	6	4	5	...	...	5	...	...
Union	1	1	1	...	1	...	1	...	...
Vanderburgh	10	11	9	6	3	1	9	...	1
Vermillion	2	2	2	2	...	...	2	...	...
Vigo	24	31	17	20	3	...	24	...	...
Wabash	5	6	4	5	...	...	5	...	...
Warren†	...	...	...	...	...	...	...	...	...
Warrick	1	2	...	1	...	...	1	...	...
Washington	4	5	3	4	...	...	4	...	...
Wayne	12	14	10	11	1	...	10	2	...
Wells	1	2	...	1	...	...	1	...	...
White	5	4	6	5	...	...	5	...	...
Whitley	2	2	2	2	...	...	5	...	...
Total	448	478	422	409	29	10	422	13	13

†None reported. *Triplets.

TABLE No. VIII.

MARRIAGES.

Showing total number of Marriages in the State of Indiana, arranged by Months, Color, Nationality and Grouped Ages, for the year ending September 30, 1884.

COUNTIES.	Whole Number.	1883.			1884.									Color.		Nationality.				
		October.	November.	December.	January.	February.	March.	April.	May.	June.	July.	August.	September.	White.	Colored.	Both American.	Both Foreign.	Amer. Male, For. Female.	For. Male, Am. Fem.	Not Reported.
Adams	153	18	15	4	14	6	10	11	9	9	14	13	30	153	...	122	10	3	3	15
Allen	558	61	52	30	81	45	27	59	55	42	33	33	40	553	5	349	104	37	48	20
Bartholomew	218	21	16	25	27	19	10	9	20	18	15	14	24	214	4	184	2	3	9	20
Benton	81	16	10	7	5	10	5	1	6	3	2	5	11	81	...	70	6	1	4	...
Blackford	86	9	9	11	5	4	11	9	3	2	8	11	4	86	...	86	...	...	...	...
Boone	215	28	22	17	18	16	17	18	15	11	11	19	23	213	2	207	...	4	4	...
Brown	86	10	5	1	9	13	7	14	6	4	8	2	7	86	...	60	...	1	1	24
Carroll	174	24	18	12	10	17	17	12	15	11	5	15	18	174	...	169	1	...	4	...
Cass	273	33	25	29	34	23	18	23	23	19	12	13	21	270	3	144	6	2	1	120
Clark	521	60	50	52	41	27	41	44	49	36	35	37	49	486	35	160	4	3	7	347
Clay	203	27	14	25	19	11	12	20	8	16	15	13	23	199	4	144	34	6	15	4
Clinton	200	35	19	19	13	14	12	11	12	10	21	14	20	199	1	185	...	...	...	15
Crawford	126	30	4	2	26	9	4	13	6	7	10	7	8	126	...	123	...	...	...	3
Daviess	236	23	24	25	27	12	27	20	12	15	17	16	18	235	1	204	5	5	8	14
Dearborn	241	22	22	29	11	14	23	21	27	15	11	19	27	241	...	...	...	...	...	241
Decatur	169	26	24	14	11	8	10	16	12	10	10	16	12	167	2	150	16	1	2	...
Dekalb	180	26	17	19	15	15	16	12	22	9	8	7	14	180	...	158	3	7	5	7
Delaware	212	25	25	27	13	9	4	31	11	17	17	14	19	211	1	196	3	4	9	...
Dubois	162	22	20	24	14	8	12	3	16	8	10	8	17	162	..	149	5	1	5	2
Elkhart	252	36	19	13	35	19	35	14	16	18	23	12	12	252	...	191	42	11	6	2

Fayette	96	15	8	16	9	7	6	8	4	3	11	5	4	94	2	87	6	2	1	. . .
Floyd	338	40	83	28	27	12	18	32	42	32	8	40	26	332	6	218	27	7	18	68
Fountain	189	15	18	10	13	11	10	21	13	15	15	26	22	188	1	143	5	1	6	34
Franklin	143	20	19	13	7	5	10	6	11	11	11	14	16	143	. . .	112	14	3	14	. . .
Fulton	146	17	17	7	17	11	4	15	13	7	10	11	17	146	. . .	144	. .	1	1	. . .
Gibson	185	21	18	15	8	8	10	22	10	5	26	17	25	172	13	176	3	. . .	5	1
Grant	275	24	23	20	27	24	30	15	16	20	21	24	31	256	19	271	2	. . .	2	. . .
Greene	167	19	18	11	20	12	13	23	11	10	8	8	19	166	1	164	. . .	. . .	3	. . .
Hamilton	180	27	16	7	19	9	13	13	10	5	5	27	29	178	2	178	. . .	. . .	. .	2
Hancock	134	10	11	11	12	17	29	11	9	1	9	6	8	134	. . .	60	. . .	1	1	72
Harrison	165	7	9	9	28	13	8	20	23	12	7	6	23	161	4	148	3	. . .	3	11
Hendricks	235	40	18	36	36	10	18	11	9	20	4	13	20	234	1	158	. . .	. . .	2	75
Henry	281	18	50	34	29	34	32	10	14	10	15	10	25	277	4	123	. . .	1	3	154
Howard	224	22	18	14	22	26	15	9	14	14	23	27	20	221	3	167	. . .	. . .	1	56
Huntington	244	31	23	27	25	18	17	12	9	12	17	17	36	243	1	233	3	2	6	. . .
Jackson	188	17	27	27	15	20	17	17	13	11	9	10	5	187	1	175	3	5	5	. . .
Jasper	75	10	4	4	8	18	2	5	6	2	2	9	5	75	. . .	66	2	2	5	. . .
Jay	251	48	34	34	19	9	27	22	9	10	13	11	15	249	2	250	. . .	. . .	1	. . .
Jefferson	208	34	29	15	18	9	15	6	5	20	7	17	33	208	. . .	. . .	. . .	. . .	. . .	208
Jennings	147	22	14	22	10	11	19	12	11	8	2	10	6	144	3	138	2	2	4	1
Johnson	188	30	19	21	12	18	23	9	6	13	7	19	11	183	5	155	. . .	. . .	2	31
Knox	261	28	31	17	19	20	20	38	9	16	25	18	20	255	6	221	6	6	3	25
Kosciusko	341	50	50	34	27	15	27	22	21	13	15	20	47	340	1	329	3	8	3	3
Lagrange	84	8	12	9	10	6	5	8	3	4	7	4	8	84	. . .	84	. . .	. . .	. . .	. . .
Lake	136	18	10	9	15	17	11	6	8	6	16	7	13	136	. . .	72	25	12	18	9
Laporte	276	34	43	29	19	14	12	29	27	23	22	13	11	276	. . .	124	43	. . .	3	106
Lawrence	137	19	6	10	9	5	7	18	16	10	8	12	17	135	2	133	. . .	. . .	3	1
Madison	276	30	18	27	29	25	18	31	15	18	11	26	28	272	4	274	. . .	1	1	. . .
Marion	971	110	98	53	55	90	79	61	102	98	82	81	62	904	67	678	163	32	67	31
Marshall	257	23	33	22	32	13	23	20	21	12	16	16	26	257	. . .	. . .	. . .	. . .	. . .	257
Martin	119	17	10	10	6	7	11	16	11	9	7	4	11	119	. . .	93	10	4	3	9
Miami	249	32	28	22	18	15	27	19	12	12	17	21	26	247	2	193	15	3	7	31
Monroe	161	15	17	19	17	10	8	28	5	13	7	6	16	156	5	158	. . .	3	. . .	. . .
Montgomery	251	29	25	28	15	22	19	23	20	12	16	21	21	251	. . .	. . .	. . .	. . .	. . .	251
Morgan	124	4	5	23	6	12	4	12	13	11	6	11	17	124	. . .	123	1	. . .	. . .	. . .
Newton	69	5	7	8	10	5	6	7	5	2	3	3	8	69	. . .	34	13	1	9	12
Noble	169	28	21	16	15	18	22	9	8	4	16	5	7	169	. . .	151	5	3	7	3
Ohio	60	4	8	7	5	4	8	4	3	. . .	1	7	9	58	2	40	. . .	. . .	3	17
Orange	88	10	4	9	13	9	5	5	2	4	6	8	13	88	. . .	82	. . .	. . .	. . .	6
Owen	100	11	10	4	6	6	4	16	12	9	5	9	2	99	1	94	2	1	3	. . .
Parke	206	22	25	22	17	9	19	9	16	14	11	19	23	198	8	203	1	1	1	. . .
Perry	121	15	15	7	4	10	14	7	14	9	7	12	7	118	3	119	. . .	. . .	. . .	2
Pike	161	14	17	15	17	20	14	19	11	6	7	6	15	158	3	153	2	. . .	6	. . .

TABLE No. VIII—Continued.

COUNTIES.	Whole Number.	1883.			1884.									COLOR.		NATIONALITY.				
		October.	November.	December.	January.	February.	March.	April.	May.	June.	July.	August.	September.	White.	Colored.	Both American.	Both Foreign.	Amer. Male, For. Female.	For. Male, Am. Fem.	Not Reported.
Porter	89	...	...	...	13	10	10	9	8	15	9	9	6	89	...	12	10	1	1	65
Posey	255	20	26	27	26	23	28	21	23	14	18	15	14	231	24	231	6	5	13	...
Pulaski	93	12	7	12	7	9	10	9	7	7	3	6	4	93	...	75	7	1	1	9
Putnam	208	34	17	9	24	22	10	22	15	10	24	13	8	206	2	201	1	...	5	1
Randolph	254	29	29	17	24	22	31	14	21	13	11	24	19	246	8	254	...	...	...	...
Ripley	166	23	22	18	17	12	6	20	20	8	8	3	9	166	...	133	20	6	7	...
Rush	161	24	17	21	17	11	13	11	11	7	6	8	15	150	11	134	3	1	1	22
Scott	62	...	10	10	7	6	3	2	3	5	5	4	7	62	...	60	...	...	2	...
Shelby	244	21	26	24	20	10	8	20	18	23	11	30	33	243	1	155	10	6	6	67
Spencer	231	22	22	17	13	15	23	38	24	14	14	15	14	210	21	221	5	...	5	...
Starke	67	14	6	18	3	3	1	10	3	1	1	4	3	67	...	56	6	1	4	...
Steuben	106	14	13	20	8	8	12	6	9	2	3	4	7	106	...	55	1	2	1	47
St. Joseph	264	27	34	25	9	23	16	25	22	20	16	15	32	262	2	152	84	7	15	6
Sullivan	281	17	28	21	34	30	22	15	18	21	17	24	34	276	5	106	21	7	10	137
Switzerland	145	19	8	10	16	7	11	19	12	9	3	7	24	141	4	110	1	...	...	34
Tippecanoe	256	32	41	31	26	18	19	16	11	8	18	16	20	256	...	171	32	7	8	38
Tipton	157	20	22	24	10	6	11	19	10	6	11	7	11	157	...	149	...	...	1	7
Union	55	7	6	5	2	2	2	1	10	4	3	5	8	51	4	30	1	1	...	23
Vanderburgh	560	59	42	43	79	35	41	31	63	39	29	27	72	489	71	292	26	20	26	196
Vermillion	86	8	11	15	6	2	4	6	9	7	8	7	13	86	...	84	...	...	1	1
Vigo	468	44	35	61	44	20	12	45	37	55	26	31	58	444	24	397	30	10	31	...
Wabash	245	28	21	23	24	16	17	22	19	14	12	22	27	244	1	225	3	1	7	9
Warren	108	21	3	7	8	5	18	4	5	10	3	9	15	108	...	104	...	1	2	1
Warrick	227	33	17	10	17	11	27	17	18	18	8	7	34	224	3	201	11	8	4	3
Washington	167	18	11	18	18	13	19	14	7	13	8	13	15	167	...	146	7	3	4	7
Wayne	350	49	40	44	29	24	26	23	20	40	23	12	20	324	26	322	7	3	13	5
Wells	193	30	19	19	16	17	14	23	9	8	6	13	19	193	...	180	12	1	...	...
White	116	11	12	21	11	8	10	9	2	4	3	5	20	116	...	111	1	...	4	...
Whitley	126	10	9	8	20	13	15	16	9	7	5	6	8	126	...	118	3	1	4	...
Total	18,762	2,211	1,883	1,744	1,721	1,354	1,456	1,554	1,398	1,228	1.133	1,305	1,775	18,325	437	14,060	908	279	527	2,988

TABLE No. VIII—Continued.

GROUPED AGES.

Showing total number of Marriages in the State of Indiana, arranged by Months, Color, Nationality and Grouped Ages for the year ending September 30, 1884.

COUNTIES.	Whole Number.	Grouped Ages.																					
		Under 20.		20 to 25		25 to 30.		30 to 35.		35 to 40.		40 to 50.		50 to 60.		60 to 70.		70 to 80.		Over 80.		Not Reported.	
		M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Adams	153	3	36	67	71	44	16	12	9	5	3	7	3	1	...	1	1	..	..	..	..	13	14
Allen	558	2	106	194	276	222	97	45	25	42	15	26	17	9	6	7	2	1	..	..	..	10	14
Bartholomew	218	2	36	81	111	64	31	25	11	14	3	7	6	7	1	...	..	..	..	..	..	18	19
Benton	81	1	27	30	33	28	11	9	5	5	...	2	1	1	1	1	1	..	..	..	..	4	2
Blackford	86	...	25	34	34	23	18	14	4	6	2	7	1	1	1	1	..	..	..	..	..	...	...
Boone	215	5	79	95	62	59	30	15	8	10	4	15	8	7	5	2	2	7	1	..	..	...	16
Brown	86	2	29	41	42	27	4	5	1	2	2	1	2	2	3	3	..	..	..	..	..	3	3
Carroll	174	2	49	70	80	54	23	24	7	11	4	5	5	5	2	1	2	2	..	..	..	...	2
Cass	273	2	37	63	56	34	13	16	9	5	1	5	5	1	...	1	.	..	..	..	..	146	152
Clark	521	3	39	68	81	55	25	14	10	12	5	7	7	6	...	3	1	..	..	..	..	353	353
Clay	203	4	87	105	65	53	16	20	12	10	9	6	6	5	2	...	2	..	..	..	..	...	4
Clinton	200	1	61	67	79	64	23	28	9	5	4	9	7	1	2	3	..	..	..	1	..	21	15
Crawford	126	7	45	49	41	26	15	16	11	9	6	9	3	2	1	6	2	1	..	..	..	1	2
Daviess	236	2	55	101	100	71	45	19	13	10	7	12	8	7	5	7	..	..	..	..	..	7	3
Dearborn	241	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	..	..	..	..	..	241	241
Decatur	169	2	44	63	64	55	30	19	9	9	4	8	6	6	5	5	1	..	..	..	..	2	6
Dekalb	180	1	47	70	74	63	31	11	7	11	11	10	4	9	3	1	..	..	..	..	..	4	3
Delaware	212	1	53	80	76	73	43	22	17	13	9	12	6	5	3	4	2	2	..	..	..	...	3
Dubois	162	5	59	66	64	54	22	17	7	7	1	5	3	2	1	3	3	2	..	..	..	1	2
Elkhart	252	4	83	117	96	76	38	21	12	9	6	10	11	9	2	3	2	1	..	..	..	2	2

TABLE No. VIII—Continued.

COUNTIES.	Whole Number.	GROUPED AGES.																					
		Under 20.		20 to 25.		25 to 30.		30 to 35.		35 to 40.		40 to 50.		50 to 60.		60 to 70.		70 to 80.		Over 80.		Not Reported.	
		M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Fayette	96	1	26	44	52	32	12	8	3	5	2	4	...	...	...	...	1	1	...	...	...	1	...
Floyd	338	...	34	69	93	55	29	23	9	14	6	18	14	5	1	...	...	2	...	...	...	152	152
Fountain	189	1	45	65	61	37	20	17	6	10	5	10	6	9	3	4	1	1	...	...	...	35	42
Franklin	143	...	33	53	64	51	20	20	10	9	2	3	7	5	4	2	...	...	...	...	...	...	3
Fulton	146	1	45	67	62	46	19	11	7	6	5	10	4	2	3	2	1	1	...	...	...	...	...
Gibson	185	3	53	71	73	56	33	17	7	13	8	14	9	7	...	4	1	...	...	...	...	...	1
Grant	275	8	98	132	114	68	31	26	11	13	4	9	11	12	1	5	3	1	1	...	...	1	1
Greene	167	6	56	71	62	44	21	13	8	10	8	9	6	9	3	4	2	1	...	...	...	...	1
Hamilton	180	2	50	79	86	50	15	18	9	9	7	11	7	5	4	3	...	...	...	...	...	3	2
Hancock	134	...	12	23	22	19	11	4	4	3	2	2	1	...	...	1	1	...	...	...	...	82	81
Harrison	165	7	47	73	71	45	26	12	7	8	5	12	6	2	2	3	1	1	...	...	...	2	...
Hendricks	235	2	41	78	71	43	34	19	10	9	6	12	9	3	2	3	...	2	...	...	...	61	62
Henry	281	10	51	62	58	44	18	12	6	8	5	10	4	3	2	1	1	...	...	...	...	131	136
Howard	224	10	74	93	95	61	23	21	9	12	5	11	11	9	2	4	2	...	...	...	...	3	3
Huntington	244	4	52	73	114	95	30	29	22	14	8	10	8	8	8	9	1	...	...	...	...	2	1
Jackson	188	3	53	75	83	57	28	21	9	11	4	11	6	6	1	2	...	1	...	...	...	1	4
Jasper	75	1	18	30	38	32	13	4	2	2	1	5	2	...	...	...	...	...	...	...	...	1	1
Jay	251	2	68	97	79	42	19	18	11	11	6	10	4	2	2	4	4	2	...	...	...	63	63
Jefferson	208	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	208	208
Jennings	147	4	35	55	51	34	26	21	11	10	4	7	6	6	2	2	...	...	...	...	...	8	12
Johnson	188	3	39	63	64	46	28	20	9	7	6	5	4	4	3	6	2	...	...	...	...	34	33
Knox	261	2	57	74	89	76	49	30	13	20	10	18	6	7	2	...	...	1	1	...	...	33	34
Kosciusko	341	...	71	103	108	88	40	21	12	16	9	16	6	4	3	2	...	1	1	...	...	90	91
Lagrange	84	1	25	29	41	34	14	14	3	3	...	3	...	...	...	...	...	...	...	...	...	...	1
Lake	136	...	24	43	68	47	18	16	7	7	4	7	5	5	3	4	...	...	1	...	...	7	6
Laporte	276	...	33	58	84	66	29	14	11	15	7	7	4	9	1	1	1	...	...	...	...	106	106
Lawrence	137	4	32	60	59	37	23	18	10	5	9	6	...	2	1	2	1	...	...	...	...	3	2
Madison	276	4	86	100	96	81	41	31	15	25	11	21	8	5	2	7	...	...	...	...	...	2	17
Marion	971	4	178	361	433	313	197	115	66	62	37	61	30	33	11	10	3	1	1	...	...	11	15
Marshall	257	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	257	257

Martin	119	1	36	50	59	34	4	14	8	9	6	8	4	1	1	2	..	..	..	..	..	...	1
Miami	249	10	86	111	91	67	41	21	9	10	2	12	8	6	1	3	2	2	..	..	..	7	9
Monroe	161	5	51	63	50	49	37	19	7	9	5	8	8	2	1	4	..	..	..	..	..	2	2
Montgomery	251	...	...	...	...	..	...	...	...	...	...	...	...	...	...	...	..	..	..	..	..	251	251
Morgan	124	6	44	50	41	26	15	16	4	9	3	8	5	7	...	2	..	..	..	..	..	...	12
Newton	69	...	24	18	29	31	12	8	...	4	...	3	4	3	...	1	..	..	..	..	..	1	..
Noble	169	4	30	59	76	36	31	19	8	14	5	11	5	3	3	4	1	..	..	..	..	19	10
Ohio	60	2	10	17	21	19	9	2	1	1	1	1	2	2	1	...	..	..	..	..	..	16	15
Orange	88	3	34	42	24	20	15	8	6	5	2	4	2	2	3	2	..	1	..	..	..	1	2
Owen	100	5	33	46	46	27	12	8	4	5	2	7	3	2	...	...	..	..	..	..	..	..	...
Parke	206	2	66	85	88	64	26	25	9	12	4	7	12	8	...	1	..	..	..	..	..	2	1
Perry	121	4	30	58	65	32	14	10	1	2	...	3	5	5	3	...	..	2	..	..	..	5	3
Pike	161	6	64	73	65	41	18	16	5	8	2	12	6	3	1	2	..	..	..	..	..	...	...
Porter	89	1	17	36	36	23	13	7	3	4	1	..	3	3	...	...	..	..	1	1	..	14	15
Posey	255	5	87	89	88	100	44	26	13	12	9	9	8	10	1	2	1	..	..	..	..	2	4
Pulaski	93	...	36	40	31	29	15	9	6	5	4	4	1	2	...	1	..	..	..	..	..	3	...
Putnam	208	4	60	86	80	52	43	30	8	16	5	10	3	3	3	2	1	2	1	..	..	3	4
Randolph	254	4	97	138	104	54	21	18	10	10	5	12	13	9	3	8	1	1	..	..	..	...	...
Ripley	166	...	28	45	56	40	22	26	7	11	5	2	1	...	1	...	..	1	..	..	..	41	46
Rush	161	1	33	49	71	50	18	15	8	9	3	7	2	2	3	2	1	1	..	..	..	25	22
Scott	62	1	24	26	14	13	12	9	4	4	2	5	6	2	...	1	..	..	..	..	..	1	...
Shelby	244	6	84	95	105	89	29	24	10	15	7	9	5	1	1	3	..	..	..	..	..	2	3
Spencer	231	4	59	96	117	62	28	28	11	16	6	12	7	5	3	7	..	..	..	..	..	1	...
Starke	67	...	11	20	19	15	11	7	2	3	3	2	2	...	...	1	..	..	..	..	..	19	19
Steuben	106	5	36	49	44	31	9	8	5	3	2	3	4	4	2	1	1	2	..	..	..	...	3
St. Joseph	264	2	49	76	142	108	42	35	12	16	8	15	3	6	7	5	1	1	..	..	..	...	...
Sullivan	281	15	116	114	93	75	35	29	10	13	7	19	12	3	3	5	3	3	..	..	..	5	2
Switzerland	145	3	48	68	67	44	17	12	3	7	3	3	2	2	1	1	1	1	..	..	..	4	3
Tippecanoe	256	...	50	91	124	92	39	31	19	13	15	15	4	7	...	1	..	..	..	..	..	6	5
Tipton	157	2	47	69	62	44	25	13	8	9	5	8	2	3	...	2	2	..	..	..	..	7	6
Union	55	1	2	10	10	2	1	...	...	...	1	1	...	...	1	1	..	..	..	..	..	40	40
Vanderburgh	560	2	89	202	256	160	70	43	22	20	15	29	9	6	2	4	..	..	..	..	..	94	97
Vermillion	86	...	33	39	30	20	15	14	5	6	...	3	...	2	2	1	..	..	..	..	..	1	1
Vigo	468	3	120	168	175	138	96	66	27	34	17	35	23	13	4	7	2	1	..	..	..	3	4
Wabash	245	...	58	111	119	70	36	21	7	15	5	12	6	2	1	2	2	1	2	..	..	11	9
Warren	108	1	31	38	36	22	10	11	3	6	2	8	5	1	1	1	..	..	..	..	..	20	20
Warrick	227	4	65	96	88	58	36	21	12	17	9	13	6	5	2	3	..	1	1	..	..	9	8
Washington	167	5	34	59	66	45	33	18	5	10	4	9	3	3	6	3	..	..	..	..	..	15	16
Wayne	350	7	74	121	146	121	52	38	19	26	11	14	15	15	4	2	1	2	2	1	..	3	26
Wells	193	3	79	91	63	63	30	10	8	5	5	9	3	5	4	3	1	..	..	..	..	4	...
White	116	2	39	42	52	43	16	14	3	7	1	4	1	...	...	...	..	..	..	..	..	4	4
Whitley	126	...	25	47	60	41	25	17	3	8	3	4	5	4	3	4	1	..	..	..	.	1	1
Total	18,762	261	4,467	6,545	6,905	4,994	2,475	1,711	808	940	477	845	512	410	181	231	69	54	13	3	..	2,768	2,855

TABLE No. IX.

BIRTHS, MARRIAGES, AND DEATHS.

Showing the number of Births, Marriages, and Deaths occurring in the State of Indiana, arranged by Counties, according to Sex and Nationality, for the year ending September 30, 1884.

COUNTIES.	Births.								Marriages.						Deaths		
	Sex.			Parentage.											Sex.		
	Male.	Female.	Total.	Both American.	Both Foreign.	Am. Father. For. Mother	For. Father. Am. Mother	Not Reported.	Both American.	Both Foreign.	Hus'd American. Wife Foreign.	Hus'd Foreign. Wife American.	Not Reported.	Total.	Male.	Female.	Total.
Adams	155	135	290	227	20	15	12	11	122	10	3	3	15	153	43	44	87
Allen	609	492	1,101	587	196	20	98	189	394	104	37	48	20	558	279	235	514
Bartholomew	255	254	509	441	18	4	31	10	184	2	3	9	20	218	106	120	226
Benton	114	116	230	146	34	7	25	15	70	6	1	4	....	81	27	28	55
Blackford	128	124	252	252	....	....	....	....	86	....	....	....	....	86	21	22	43
Boone	325	316	641	509	4	1	1	123	207	....	4	4	....	215	91	102	193
Brown	115	116	231	215	7	2	....	6	60	....	1	1	24	86	25	20	45
Carroll	282	251	533	490	10	3	10	10	169	1	....	4	....	174	77	47	124
Cass	279	231	510	394	73	6	14	19	144	6	2	1	120	273	76	75	151
Clark	264	210	474	372	51	14	29	5	160	4	3	7	347	521	118	94	212
Clay	216	223	439	287	67	12	27	42	144	34	6	15	4	203	64	60	124
Clinton	111	100	211	200	6	....	2	1	185	....	....	....	15	200	31	23	54
Crawford	187	150	337	42	....	1	....	294	123	....	....	....	3	126	40	39	79
Daviess	278	292	570	519	17	3	14	14	204	5	5	8	14	236	67	62	129
Dearborn	210	209	419	....	....	....	....	418	....	....	....	....	241	241	92	86	178
Decatur	188	169	357	318	27	2	2	3	150	16	1	2	....	169	57	64	121
Dekalb	141	146	287	231	11	4	19	18	158	3	7	5	7	180	37	56	93
Delaware	301	319	620	585	10	1	11	1	196	3	4	9	....	212	87	76	163
Dubois	271	220	491	408	24	6	35	17	149	5	1	5	2	162	48	35	83
Elkhart	199	182	381	347	17	2	1	5	191	42	11	6	2	252	62	58	120

Fayette	144	160	304	260	30	4	6	....	87	6	2	1	....	96	43	38	81
Floyd	272	269	541	382	48	11	53	40	218	27	7	18	68	338	135	125	260
Fountain	166	122	288	262	3	2	9	7	143	5	1	6	34	189	63	50	113
Franklin	73	60	133	97	6	9	5	16	112	14	3	14	....	143	27	18	45
Fulton	138	120	258	255	3	....	....	....	144	....	1	1	....	146	29	23	52
Gibson	324	287	611	551	14	2	6	24	176	3	....	5	1	185	94	87	181
Grant	272	193	465	429	6	2	7	11	271	2	....	2	....	275	90	90	180
Greene	261	223	484	453	3	1	4	20	164	....	....	3	....	167	60	63	123
Hamilton	345	355	700	654	6	6	5	19	178	....	....	....	2	180	113	104	217
Hancock	232	202	434	434	....	....	....	....	60	....	1	1	72	134	46	54	100
Harrison	206	183	389	320	29	8	14	12	148	3	....	3	11	165	58	68	126
Hendricks	327	268	595	572	2	3	3	8	158	....	....	2	75	235	94	103	197
Henry	283	252	535	493	2	2	7	25	123	....	1	3	154	281	95	93	188
Howard	324	306	630	456	1	....	....	162	167	....	....	1	56	224	74	69	143
Huntington	320	274	594	509	22	4	16	35	233	3	2	6	....	244	117	132	249
Jackson	237	230	467	380	17	16	16	31	175	3	5	5	....	188	62	83	145
Jasper	125	100	225	184	13	8	17	1	66	2	2	5	....	75	31	20	51
Jay	315	258	573	489	13	7	11	50	250	....	....	1	....	251	48	50	98
Jefferson	104	102	206	163	4	....	6	29	....	....	....	....	208	208	64	45	109
Jennings	169	136	305	264	16	3	13	5	138	2	2	4	1	147	40	45	85
Johnson	262	239	501	484	5	1	5	....	155	....	....	2	31	188	84	115	199
Knox	125	99	224	158	22	....	1	40	221	6	6	3	25	261	60	52	112
Kosciusko	219	199	418	399	2	2	5	8	329	3	3	3	3	341	70	54	124
Lagrange	116	90	206	46	2	....	....	156	84	....	....	....	....	84	34	33	67
Lake	157	138	295	148	82	19	20	24	72	25	12	18	9	136	52	44	96
Laporte	299	256	555	248	236	19	36	14	124	43	....	3	106	276	165	136	301
Lawrence	146	152	298	276	13	1	3	3	133	....	....	2	1	137	51	32	83
Madison	424	413	837	776	7	5	17	18	274	....	1	1	....	276	131	134	265
Marion	1,301	1,297	2,598	1,611	531	72	139	222	678	163	32	67	31	971	858	861	1,719
Marshall	130	105	235	204	6	4	14	6	....	....	....	....	257	257	28	31	59
Martin	131	106	237	222	5	....	1	2	93	10	4	3	9	119	25	32	57
Miami	302	301	603	457	25	3	22	90	193	15	3	7	31	249	104	110	214
Monroe	209	179	388	374	2	1	5	....	158	....	3	....	....	161	81	71	152
Montgomery	269	293	562	520	17	2	5	12	....	....	....	....	251	251	94	108	202
Morgan	155	126	281	274	....	....	....	....	123	1	....	....	....	124	37	33	70
Newton	94	85	179	110	18	5	18	27	34	13	1	9	12	69	26	32	58
Noble	138	162	300	256	23	1	8	6	151	5	3	7	3	169	34	50	84
Ohio	59	53	112	88	5	7	12	....	40	....	....	3	17	60	23	26	49
Orange	276	166	342	146	....	....	1	194	82	....	....	....	6	88	45	50	95
Owen	148	143	291	267	15	1	1	....	94	2	1	3	....	100	38	55	93
Parke	216	167	383	355	11	....	1	7	203	1	1	1	....	206	63	43	106
Perry	146	128	274	234	35	3	1	1	119	....	....	....	2	121	30	30	60
Pike	225	186	411	384	7	2	6	10	153	2	....	6	....	161	44	49	93
Porter	108	88	196	34	75	....	....	86	12	10	1	1	65	89	25	28	53

TABLE No. IX—Continued.

COUNTIES.	BIRTHS.								MARRIAGES.						DEATHS.		
	SEX.			PARENTAGE.											SEX,		
	Male.	Female.	Total.	Both American.	Both Foreign.	Am. Father. For. Mother	For. Father. Am. Mother	Not Reported.	Both American.	Both Foreign.	Hus'd American. Wife Foreign.	Hus'd Foreign. Wife American.	Not Reported.	Total.	Male.	Female.	Total.
Posey	375	269	644	538	34	8	44	6	231	6	5	13	....	255	198	134	332
Pulaski	70	63	133	123	4	5	1	....	75	7	1	1	9	93	22	19	41
Putnam	233	217	450	419	17	3	5	2	201	1	....	5	1	208	87	86	173
Randolph	407	368	785	767	1	....	....	2	254	....	....	....	....	254	117	118	235
Ripley	169	134	303	239	55	1	1	6	133	20	6	7	....	166	55	57	112
Rush	254	234	488	414	20	6	13	26	134	3	1	1	22	161	93	80	173
Scott	71	65	136	134	1	....	1	....	60	....	....	2	....	62	12	12	24
Shelby	252	213	465	281	20	7	16	136	155	10	6	6	67	244	61	71	132
Spencer	246	205	451	380	29	4	23	12	221	5	....	5	....	231	81	87	168
Starke	20	32	52	46	....	1	....	4	56	6	1	4	....	67	8	6	14
Steuben	85	75	160	107	3	1	....	49	55	1	2	1	47	106	18	14	32
St. Joseph	244	248	492	305	87	15	30	43	152	84	7	15	6	264	90	84	174
Sullivan	304	234	538	418	1	....	1	115	106	21	7	10	137	281	72	63	135
Switzerland	81	88	169	113	4	1	2	46	110	1	....	....	34	145	25	22	47
Tippecanoe	257	242	499	360	86	7	13	30	171	32	7	8	38	256	73	83	156
Tipton	198	197	395	332	6	1	15	36	149	....	....	1	7	157	53	58	111
Union	53	32	85	76	4	1	1	2	30	1	1	....	23	55	23	21	44
Vanderburgh	556	520	1,076	698	209	42	76	41	292	28	20	26	196	560	480	461	941
Vermillion	84	93	177	140	3	2	1	29	84	....	....	1	1	86	22	24	46
Vigo	571	470	1,041	825	89	11	82	10	397	30	10	31	....	468	293	281	574
Wabash	262	193	455	328	6	1	6	9	225	3	1	7	9	245	46	51	97
Warren	66	73	139	135	....	....	2	2	104	....	1	2	1	108	24	24	48
Warrick	247	177	424	349	19	5	12	38	201	11	8	4	3	227	60	72	122
Washington	192	172	364	353	....	....	....	7	146	7	3	4	7	167	65	53	118
Wayne	474	460	934	748	86	14	48	26	322	7	3	13	5	350	247	230	477
Wells	160	147	307	261	42	1	2	....	180	12	1	....	....	193	27	44	71
White	138	130	268	243	9	1	5	5	111	1	....	4	....	116	45	46	91
Whitley	229	158	387	347	10	2	22	4	118	3	1	4	....	126	63	42	105
Total	21,118	19,035	40,153	31,827	2,819	479	1,272	3,308	14,060	908	279	527	2,988	18,762	7,421	7,220	14,641

CHOLERA—ITS CAUSES, CHARACTER, AND DISSEMINATION.*

BY JAMES F. HIBBERD, M. D., RICHMOND, IND.

Cholera, as a generic term, implies an acute vomiting and purging, the discharged matter consisting in part of bile, with or without griping pains in the bowels and cramps in some of the muscles. There are several varieties of the disorder, as, e. g., cholera infantum, cholera morbus, etc., each having its distinctive exciting cause, but on this occasion we will confine our attention to epidemic cholera.

For ten years the ideas of scientists touching cholera have been undergoing evolution, and since the outbreak of the epidemic in Egypt in 1883, the most extraordinary development of new views concerning it have taken place. The governments of England, Germany and France each sent a commission to Egypt in 1883 to independently pursue exact methods in the investigation of the epidemic then raging there, and the English and Germans continued the inquiry in India, and all three, with a fourth commission from Italy, renewed their labor in France in 1884. The conclusions of these several commissions are not in entire harmony, but the unbiased student, carefully reading and comparing their reports, can readily arrive at what seems to be fairly proven as the result of their independent investigations, and it is this result I shall attempt to present to you in this paper.

CAUSES.

Epidemic Bengal cholera is caused by the comma bacillus finding lodgment in the intestinal canal, and there undergoing multiplication and development. No one can understand the nature of this case without some previous knowledge of the vegetable parasites, known under the general name of bacteria, and a few words of introduction in this behalf will, therefore, be indulged in. Bacteria are a numerous race of microscopic parasites of vegetal organization, of divers shapes, and varying from the 4,000th to the 25,000th of an inch in size—the largest being one-third smaller than, and the smallest about one-eighth the size of a red blood corpuscle. Finding a lodgment in a favorable spot with suitable surroundings, some of these bacteria multiply with astonishing rapidity. According to Cohn, a single bacteria may increase in twenty-four hours to sixteen and a half millions, and in forty-eight hours to two hundred and eighty-one billions. No one need be surprised, therefore, at the amount of disturbance attributed to these organisms, nor to the rapidity of its induction. The form of these parasites gives them generic names; a spherical one is a micrococus; a straight rod-like one is a bacterum; a twisted rod-like is a spirillus; and a filiform or thread-like is a bacillus. There are other genera, and a large number of species. The comma bacillus is so named because the minute filament which constitutes it is not straight, but slightly curved, so that it somewhat resembles the comma, a punctuation mark used in printing. Many eminent authorities now hold that all specific diseases are caused by one or another of these bacteria, but no scientist claims that any one bacteria originates more than one disease. Certainly a special variety of these parasites have been found to be present in a number of diseases, either as a cause or a consequent, as for example in relapsing fever, typhoid fever, small-pox, diphtheria and consumption.

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*Delivered at a Sanitary Convention at New Castle, Ind.

However this may be as to other diseases, we must accept the demonstrations of the great German investigator, Koch, and his coadjutors, that the comma bacillus is the cause of cholera, until equally good investigators, or more logical critics bring forward their work and establish the error of Koch's conclusions.

The comma bacillus is not a spontaneous production of moist filth under a high temperature, it has a parent just as surely as a worm, a bird or a man has a parent. Whence then does it come? In all countries outside of India it comes from the bowels of some person having cholera, so that if any one in this region becomes the victim of cholera, we may feel assured that he has in his bowel a comma bacillus from the bowel of some other cholera victim. But the bacillus does not pass directly from one victim to another. Like the germ of typhoid fever, after being discharged from one diseased bowel it must undergo some development or process of maturation before it can become the cause of disease in another bowel. This change is effected in an earth soil that is moist and warm and alkaline and contains organic matter in a state of disintegration, but not in a state of putrefaction, or it can take place in garments and fabrics that have mucus or other geletinous matter in them and are kept moist and warm; and stagnant water of proper temperature containing appropriate organic matter probably, also, affords a maturing medium.

The degree of heat demanded for development is not settled, but it has been ascertained that when the temperature falls to 60° F. the activity of the bacillus is at least suspended. This bacillus is destroyed by drying a sheet soiled with cholera discharges; has had all the germs killed by three hours drying; and nearly all acids are equally fatal to their existence; they can not survive in the acid of a healthy stomach. And still another factor seems necessary for the induction of cholera in those who receive the bacillus, and that is some obscure condition of the bowels that permits it to multiply, and to destroy the mucous membrane. It is a fair inference from our present knowledge that if one hundred persons in good health, of cheerful disposition and without fear, were to drink of water known to contain comma bacilli, not more than one of them would contract cholera, and ninety-nine at least escape; and on the other hand, if one hundred persons in poor health, with imperfect digestion, alkaline stomach, weak bowels, a tendency to diarrhœa, of a desponding disposition and apprehensive of disaster, were to imbibe such contaminated water, ninety-nine of them would have cholera, and even the one hundredth might not escape.

The cause of cholera may, therefore, be stated thus: A comma bacillus from the bowels of a person having cholera; its maturation in some medium adapted to its needs; its transportation to the bowels through a stomach where acids are in abeyance; its lodgment in bowels that have lost their resisting power of perfect health, belonging to a person of desponding disposition and apprehension of evil.

CHARACTER.

When a comma bacillus in an effective condition has had access to the intestinal canal of a person liable to cholera, it makes itself at home in the lower part of the small intestines, and begins its destructive career. The time of incubation has not been settled, but it multiplies rapidly into a great host, which invade the lining membrane, burrow into the open fallicles, swarm in the secretions, but do not penetrate beyond the mucous membrane of the bowels, nor enter the blood.

There is some reason to believe, however, that in their active state they may generate a poison, which being absorbed into the circulation, is responsible for some of the phenomena that appear during the course of the disease. This hypothetical blood poison has been repeatedly and diligently sought, but has not been discovered.

The efficient cause of cholera having become active in the body, the subsequent events may be considered through four stages:

First. The stage of development. This stage varies much in duration. Usually it is about two days, but it may be only a few hours, or it may be a number of days. It is characterized by general ill feeling, pale, anxious countenance, sense of weight in the stomach, rumbling in the bowels, ringing in the head, and other nervous disturbances. As a rule there is a diarrhea in this stage, of an ordinary character, with more or less griping.

Second. The second stage is apt to come on between midnight and morning, with a profuse and painless diarrhea; the discharges, passing from the patient in a stream and with great force, are without odor or color, and at once become what are known as rice-water stools. Vomiting accompanies this diarrhea, and cramps, painful and persistent, seize the muscles of various parts of the body, but are most violent in the calves of the legs. This diarrhea rapidly robs the body of fluids, and produces great prostration; the pulse grows weak, the face pinched and of a leaden hue and the expression staring. This point of progress may be reached in two or three hours, or it may be not until twelve or twenty-four hours or more.

Third. Algid stage.. Without a clear line of distinction the second merges into the third stage, which is known as the stage of collapse. The diarrhea and the cramps continue, the features are more pinched, the eyes sunken, the entire surface of a heavy leaden color, clammy, cold and bathed with perspiration; the skin is wrinkled and folded like the hands of a washer-woman; the pulse at the wrist is no longer perceptible; the mouth dry from the absence of saliva; the urine is suppressed; the patient sinks into a stupor from which he is aroused by the cramps, which cause him to shriek out in agony and throw himself from side to side of the bed; the heart sounds cease to be audible, the bowels are evacuated unconsciously or inattentively, and then in from two to forty-eight hours, under apparently complete exhaustion, the patient dies or reaction sets in.

Fourth. This is the state of reaction, wherein the heart sounds become appreciable, the flow of saliva is renewed, the skin grows warm and dry, the face loses its cadaverous appearance, the urine is again secreted, and the general bodily functions come around to the normal in from one to ten days.

This is a brief outline of the main features of a typical case of epidemic Bengal cholera, but in other cases the onset, the order and severity of the symptoms, the duration of each stage and the continuance of the whole disease are subject to very wide and striking differences. The attack may end with the first stage, and is then known as cholerine; a large proportion of the cases will cease before falling into collapse, and of those which survive the collapse some may have a rapid transition to health, while others linger in a typhoid state for a long period.

\DISSEMINATION.

Cholera has but one perpetual abiding place, and that is in the delta of the Ganges, in the Province of Bengal, British India. There it is always present, and in other places only occasionally, and wherever it has been met with outside this region, we know it to be a stranger, a visitor from the delta of the Ganges.

We have intelligent histories of it in Hindostan since 1756. In 1817 it overstepped this limit and spread through Arabia into Syria,'and after four years havoc died out on the east coast of the Mediteranean in 1821. In 1829 it again wandered from its native swamps, passed through Afghanistan and Persia, up the valley of the Euphrates, around the Caspian Sea into Southern Russia and thence through Europe and into America, reaching the United States in 1832. In 1841 another great epidemic left Hindostan and following substantially that of 1829, reached the United States in 1849; and in 1853, 1865 and 1877 still other epidemics were started from the Ganges, and for the most part invaded Europe by the old channels, but for reasons presently to be mentioned, were diverted from the usual course, and their extent in some measure curtailed.

The present epidemic in Southern Europe is probably the offspring of the Bengal outbreak of 1877, but it came west by way of Egypt where it appeared in 1883, and thence to Toulon in France, in 1884. It will be observed that these overflows of cholera from the hot, humid delta of the Ganges have occured at regular intervals of twelve years. There is an easy explanation of this. The Hindoos have a religious festival every twelve years, which brings pilgrims from all parts of Hindostan to the holy cities on the banks of the Ganges. These pilgrims are numerous beyond the conception of any one who has not given some study to their movements. Hundreds of thousands of them, with most filthy habits, camp around the holy cities for weeks on the cholera infected ground and drink the germ-impregnated water. Every camp of these pilgrims has cholera, and every departing caravan carries it thence to the homes of the pilgrims, wherever that may be. Those going west mingle with the caravans of Mohammedan pilgrims on their way to Mecca, and thus the cholera is carried into Arabia; those going northwest mingle with the commercial caravans passing through Afghanistan, around the Caspian Sea, and thus the cholera is transported to Russia and through it to the other civilized nations. Thus we find that in spreading from Bengal the cholera has always followed the course of travel and commercial intercourse, and the only reason that its lines of march in latter times have been different from its earlier custom is that the power of steam in ships and on railroads has greatly modified the methods and speed of travel and traffic, and that quarantines have further diverted it from direct channels and retarded its progress.

Granting then that cholera is portable by persons or things or both, what are the conditions of its transportation? It is not a contagious disease and can not, therefore, be spread by direct contact of healthy persons with those who are ill ot cholera. But it is an infectious disease, and the infecting germ is derived from those who have the cholera, there being a certain process by which it, entirely innocent when it leaves the bowel that generates it, presently becomes infectious. Probably the most effective method of dissemination is when a person who has imbibed the comma bacillus travels until he falls ill with the cholera and the germs in his stools, finding favorable conditions for maturing, establish a new focus of infection from which other travelers carry the germs elsewhere and repeat the whole process.

There is also another method of effective transportation. The comma bacillus maintains its infective vitality from twenty to thirty days, and in this time may be transported long distances by our present speed of locomotion. I will submit a hypothetical case: Suppose an American tourist at a hotel in Marseilles in France, hearing groans in an adjoining room, goes in to offer aid, and finds there a man with cholera. In giving assistance he unwittingly gets some of the discharges on his night clothes. Thinking it best to leave at once, he returns to his room, washes himself thoroughly, and in doing so splashes water on his night clothes, and immediately wraps up the damp garments, packs them in his trunk and departs for his distant home. In two days he is in Havre, in ten days more he is in New York, and in fourteen days from the time he wrapped up his damp night shirt in Marseilles, he has arrived at his home in Indianapolis, and put the garment in the hands of his washer-woman, who, in washing, splashes a drop of the impregnated water onto her lips, which finds it way to her bowels and induces cholera. The moist night shirt not only afforded a maturing medium, but an excellent means of transportation for the comma bacillus, and the period of its efficient life was not half exhausted in the journey from Marseilles to Indianapolis.

The comma bacillus is probably taken into the bowels by drinking water containing it, but it is possible for it to be attached to a bit of fruit or food, or the hand, or a handkerchief, and in this way be carried to the mouth and into the bowels. Persons washing clothes soiled by choleraic discharges appear to be especially liable to contract the disease, and this is explained by the facility with which the wash-water may be splashed to the mouth, or the wet hand applied to the lips. It does not seem possible that the germ can pass into the system through the lungs. In order to be inhaled with the atmosphere the bacillus must be buoyant in the air, and to be buoyant it must be dry, and drying kills it. The natural life of the comma bacillus is so short, it is so easily destroyed by drying and by acids that the most thoughtful investigators have sought to detect it in some form or condition wherein its vitality was not so vulnerable, but so far the search has been in vain, although it is known that some other members of the bacterian family do have such resisting forms and conditions. Assuming that our knowledge of cholera and its cause is full and accurate, we should soon be able to find means to confine the disease to Hindostan, i. e. to the people who make religious pilgrimages to the holy cities on the banks of the Ganges in Bengal; and even if the present threatening epidemic in Europe should come upon us here, by general cleanliness and personal hygiene, by maintaining the best attainable health and cheerful disposition, and avoiding all depressing influences, and by preparing our drinking water or guarding it from contamination, we should be able to rob the cholera of its terrors and reduce its death-rate to less than the annual death-rate of consumption, typhoid fever or cancer.

Conceding that the fatality of cholera in Asia, in Africa, in the over-crowded, dirty cities of Europe, and in the filth-ridden slums of American cities has been enormous; that the death rate in hospitals has been 60 per cent.; that the average death rate in all classes has been about 50 per cent. Yet the death rate in private practice among sound people with fair sanitary environment has not exceeded 10 or 12 per cent. And I will venture the prediction that, supposing the population of New Castle to be 3,000, and the cholera to make its appearance here during the ensuing summer, there will be less than thirty persons attacked by cholera, and not to exceed three deaths from it. Surely this is not a prophecy to fill us with despair nor a picture to excite alarm, but it should have the virtue of an admonition to induce us to the most intelligent and earnest activity to put our persons, our homes, and our surroundings in the best hygienic, and, therefore, the most comma bacillus resisting and safest condition.

DANGERS FROM STREET SPRINKLING.

BY J. W. COMPTON, M. D., EVANSVILLE, IND.

In compliance with that part of Section 2 of the law creating a State Board of Health, which requires the members each year to make a report to the Governor regarding their investigations and discoveries during the year ending October 31, I have the honor to report on the dangers to public health from street and yard sprinkling. Sprinkling the streets in front and the yards surrounding residences, is certainly very popular, and in its immediate effects very pleasant. It has the effect of cooling the atmosphere and settling the dust, and preventing its being wafted about by the wind. Older people appear to take delight in holding the hose by the hour and directing a stream of water upon every dry spot that appears in reach, and children clamor for the privilege of handling the hose and squirting water until their childish fancies for the sport are thoroughly satisfied, regardless of the abuses to which their reckless use of the water privilege may lead. Some of these abuses may be enumerated as follows: First, the disagreable wetting of the street crossings, by which pedestrians are compelled to walk through mud in dry weather. Second, the application of inordinate quantities of water, by which the street surface is rendered muddy, if the surface be uneven and the drainage defective, pools of dirty water will be found to make travel unpleasant.

These abuses are also justly chargeable to the sprinkling wagons, especially that of wetting the street crossings—they are abuses causing inconvenience and discomfort. Besides these there is a real danger attending the sprinkling of streets, door and side yards, during the heat of summer months, and the dry weather, often protracted at this season of the year. Disease germs, which may have found a lodgement in the streets and around dwellings, in the dry state are lifeless and may be blown away as dust and carried to a safe distance from human habitations. Another fact in this connection is worthy of consideration. In this dry state disease germs are dormant, lifeless and harmless, incapable of multiplying themselves by propagation, and may be so inconsiderable in numbers as to render them incapable of causing morbid changes sufficient to create serious disease, should they accidentally come in contact with a human being.

Heat and moisture are conditions indispensable to their activity and life, and indispensable to their propagation and rapid multiplication—sprinkling the heated surface of the earth, daily or oftener, furnishes the two conditions, heat and moisture, when the disease germs are warmed first into life, then motion, then activity, when their almost unlimited powers of reproduction have the most favorable conditions of multiplying themselves into quantities sufficient to create disease. Add to this the burning heat of a summer's sun and you have an artificial hot-house with capacity for the reproduction and unlimited multiplication of germs in quantities most alarming, in quantities sufficient to cause an epidemic.

Dr. Smith and others who have had opportunities to observe and make a study of yellow fever germs, agree that germs of this disease propagate and spread from centers along surfaces equally in all directions from given foci, as often against air currents as with them, and if not transported by persons or fomites along streets and other lines of travel, the march of these germs by natural propagation and spread is exceedingly slow, never exceeding eighty or one hundred feet in twenty-four hours. Should they have many centers to spread from they soon extend over a city. I would not interdict the intelligent and judicious sprinkling of streets and door yards when the same may be done without the danger of propagating disease germs. The dangers which I would have the people more particularly guard against, is that of making the streets and premises around dwellings artificial hot-beds for the propagation and development of disease germs during the prevalence of an epidemic of cholera or other infectious diseases.

In cities permitting water troughs to be established at the various saloons, regardless of the distance to the nearest sewer inlet, and also regardless of the slight fall in the grade of street gutters, there is great danger to be apprehended from the overflow being obstructed in its passage along the gutters and becoming a filthy green line of stagnant water throughout its entire length, where offensive impurities and the germs of disease may be inhaled by every passerby who has to travel along streets cursed with the nuisance above mentioned. I am aware that reforms of this kind can not be speedily realized, but must come after much thought, experience and education on the subject; the popularity of the immediate pleasant effect of the application of the water, the additions to the revenues of the water-works derived from this source, and the profits of the plumbers, have all to be overcome. If we can convince the people that their health and their lives are being endangered, that they are furnishing the moisture where the heat is already supplied, and that these are the elements in which disease germs are most rapidly multiplied, they will abstain from voluntarily creating a nidus for the cultivation of disease germs.

SCHOOL HYGIENE.

BY A. B. BRADBURY, M. D.

The development of modern sanitary science since the passage of the Health Law of Indiana, though limited, is gratifying to those interested in the subject—and in no special department has the improvement been more marked than in school hygiene, as evinced by the better sanitary condition of school buildings, and the interest manifested by school officers and teachers on the subject. They are willing to receive instructions and cheerfully put in practice at any reasonable expenditure of time and money, such means as are believed to be necessary to protect the health of the pupils of the public schools. It is not to be inferred from this that the condition of the schools is all that could be desired by the sanitarian.

While it is evident on casual inspection of the country schools that there are practices and conditions requiring to be corrected in most if not all of them, a survey made to-day would show a vast improvement during the last two years in their condition and management. Boards of Education have not had time nor opportunity to investigate the various subjects connected with school sanitation, and much time will be required to put in practice the needed reforms, but the interest they manifest is encouraging for the future condition of the schools.

Faulty construction of buildings admitting of very imperfect ventilation and lighting, was proven to be almost universal by the survey of school buildings made two years ago, and improper location of buildings with scarcely any attention to drainage of the school grounds was almost as universal.

Each year new school buildings are being erected in nearly every county of the State, and while the Trustee who superintends the constructon, may be and generally is a good business man, he is not a sanitarian and has not made a study of ventilation, heating, and lighting of school buildings—and has given the subject of drainage a thought only as it pertains to agriculture. How then are these wrongs to be corrected? By whose authority are such improvements to be introduced as will secure to the pupils and teachers the advantage of all that is known to modern sanitary science relating to school architecture and hygiene?

Most certainly it must be by authority of some one fully competent to direct the construction of school buildings in conformity with the laws of sanitary science.

The appointment by the Governor of a State School Architect, who should be nominated by the State Board of Health and State Board of Education jointly, and whose duty it should be to furnish plans for new school buildings and to examine and direct such changes of old structures as are required under sanitary rules, would we think, accomplish much good so far as pertains to school architecture.

But were it possible at once to supply to every school district in the State of Indiana a house perfect in all that pertains to heating, ventilation and lighting, the presence of such a house would accomplish but little, unless there existed a more general knowledge, on the part of the teachers of the State, of the subject of school hygiene. We conceive the most important duty of the health officer in the administration of the health laws to be that of instructing the people in the manner of preserving health. There is no place where instructions on this subject can be better given, or that promises better results, than in the public schools of the State. The principles received there by the pupils are transmitted to the homes, and exert an influence reaching far into the future. The instructions given in the school should be by the practical enforcement of all laws of health, and especially those pertaining to school hygiene, and the correction by the teacher of any violation on the part of a pupil of these laws or principles. This implies a qualification of the teacher, which we are satisfied, in perhaps a majority, they have not attained to. To stimulate the teachers of the State to the acquirement of the necessary knowledge of the subject, it is advisable that the State Board of Education be asked to insert at least two questions on the subject of school hygiene in each set of questions sent out to county superintendents for their examination of teachers. This will insure the study of the subject by the teachers, and develop an interest on their part that will secure greater attention to ventilation, lighting and heating of school-rooms, and perhaps greater attention to cleanliness of pupils and school furniture. Having secured houses properly constructed and a more general knowledge of school sanitation on the part of the teachers of the State, it should be required that school trustees supply a separate seat for each pupil, properly proportioned in hight to the size of the child, and so arranged that each pupil will have not less than fifteen square feet of floor space. This will avoid the dangerous and very unpleasant custom of crowding together, on the same seat, children from different families, the one with body and clothing clean, the other repulsive with filth and dirt—a preambulating incubator of contagious and infectious diseases.

Cleanliness of floors and school furniture is highly important. The perspiring hands of the pupils in contact with the desk, the exhalations from the lungs combined with effete matter thrown off from the body, and the dust from the school-room, soon forms a coating on the surface of the furniture, which must of necessity be deleterious in its effects on the health of pupils, especially when allowed to remain from month to month and from year to year, as it is in our country schools. To avoid this accumulation of fetid organic matter, each school should have a janitor who should keep the house clean.

The walls of the room should be whitewashed at the beginning of each term of school, and the floor and desks should be thoroughly washed and scrubbed at least once each week during the term. It is not the duty of the teacher to do this, and hence the necessity for a janitor. Keeping the house scrupulously clean will develop a habit of personal cleanliness on the part of the pupils in attendance. It is doubtful whether a teacher has the legal authority without the consent of the trustee to exclude a child from school on account of its filthy condition—the existence on its person of communicable entozoa or parasites, or one affected with a contagious disease. There should be a well defined course of action laid down for the teachers in these cases, one that would speedily and without delay remove the contagion or infection from the school room. To this end, an order or letter of instructions from the State Board of Health to each teacher in the State, defining their duties and necessary action in such cases, would be effectual in preventing the spread of contagious and infectious diseases. I have presumed in the foregoing that no one would dispute the established fact that school room air is usually bad, and that the confinement of a delicate child in this atmosphere, on faulty constructed seats, causes many cases of spinal curvature, with distortion of the chest walls and consumption as a *sequela.* It is daily developing that the present system of education is largely responsible for the existence of the nervous diseases so prevalent at this time. Subjected to the deleterious influence of too long a daily confinement and close application, in a bad atmosphere, for from seven to ten months each year, during their their school life; stimulated by reward, if bright, and depressed by the fear of and frequently by a realization of a failure, if dull, the only wonder is, that the increased rate of lunatics to the whole population is not greater than it is, it being placed at 45 per cent. increase during the last ten years by that careful observer and scientist, Dr. Charles A. Lee.

A ten or even an eight-month school year, with daily sessions of six hours, during which time the undue stimulation of the brain is kept up, is too much for the growing child, and at maturity, or when the so-called education is completed, there exists a degree of physical depression coupled with an excitable nervous system that will not bear the strain of active business life. An annual term of not more than seven months, with one daily session of three hours, would be far preferable to the present arrangement. If their advancement in the studies was not quite so rapid, a degree of physical vigor would be maintained to more than compensate for the extra time required to complete the course.

This rule might very properly apply to all pupils below the high school grade. For those in the high school a morning and evening session of not more than two hours each should be held.

DRAINAGE FOR HEALTH.*

BY W. W. VINNEDGE, M. D.

According to current literature, sanitary science has been much studied of late, theoretically and practically, with reference to the improvement of the hygienic surroundings of the inhabitants of cities, towns and villages; but it has not, I venture to believe, received the attention and study in behalf of the country that should have been given it. I do not think that the people of Indiana have fully appreciated the injurious effects to health of stagnant water in creeks and ponds and marshes, or of the fact that one of the most frequent causes of diseases of this State is the presence of still water in the form of saturated soil, either in the fields or the land yet covered by timber. The subject is one of the greatest practical importance. No undertaking looking to the improvement of the material and social welfare of the people of this State promises more speedy and better results than effective measures for the reclamation of our waste wet lands.

The drainage of lands so as to carry off water readily, and thus to make both soil and air drier, has a great effect on public health. Where it has been practiced thoroughly, the disease rate has diminished from 50 to 75 per cent., and many sanitarians estimate 100 per cent. Perfect drainage lies at the base of all sanitary measures, and can not be dispensed with in either city or country; and, next to the improvement of the moral and social condition of some of our alms-houses and farms, is, I think, second in importance to no other sanitary question with which the people of this State have to do. The man who drains his farm well is a public benefactor; while the land-owner who tolerates, year after year, the presence of stagnant water on his property, needlessly exposes his neighbors, his family and himself to expense and pain and the danger and distress of disease.

That the past and present generations have done much in the way of land-drainage, individually and collectively, there is no doubt; but that there remains much more to be done is equally true. Heretofore, drainage has been carried on chiefly for agricultural purposes, and the labor and money invested has not only enhanced the value of crops, but it has wonderfully improved the health of the people. This county and State stands in great need of more ditching—both open and underground drains—and it may be reasonably expected by the General Assembly of 1881 that this good work will continue to be prosecuted vigorously, so that it may be expected that many of the present prevalent diseases will soon pass away.

The cause of public hygiene, especially in Northern Indiana, has been greatly benefited by the personal and official interest of Governor Porter, who aided much in securing a beginning in the work which it is believed will finally result in the reclamation to health and agriculture of the "large bodies of wet lands in the Kankakee region." The people of the State, and especially of that district, owe the General Assembly of 1881 a lasting debt of gratitude for its interest and legislation on the all-important subject of drainage, the good effects of which will become more and more apparent in the near future.

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*Prepared for the Sanitary Convention held in Mitchell, Ind.

Although sanitarians have known and frequently urged upon legislative bodies the importance to health of better drainage, comparatively little general attention has been given the subject, except for profit. In 1830 the sanitarians of New York State, "undertook to make a medico-topographical survey of that State, comprehending the relations of the prevailing diseases to the physical geography of the State and the habits of the people," and had the Legislature of that State embodied the facts contained in the report on this work in wise legislation, thousands of lives would have been prolonged and large sums of money saved to the State.

Drainage, whether for health or profit, is that system or method by which superabundant water may be removed from the soil, which has or may become saturated. It may be by natural means or artificial or by a combination of both.

The term soil is not to be used in a restricted sense in this paper; it is expected to include all that portion of the earth's crust which by any property or condition can affect health; and drainage for sanitary purposes requires that the stagnant water on the surface and in the soil to a given depth, be furnished with a ready means of escape.

The natural topography may be such as to require little aid from art in perfecting the drainage of a section of the country, while on the other hand art alone may be able to drain so as to render it healthy and safely habitable. Natural water courses, assisted by the skillful drainer, generally furnish all the necessary requirements in ridding saturated soil of its superabundant moisture or water.

The question, how deep should the average drain be? depends somewhat upon the character of the soil and topography, and I may mention incidentally, upon the crops to be grown upon it. The experience of good drainers seems to have fixed four feet as about the proper depth, and this, I believe, is accepted as a rule on the subject.

It is not expected that the properly constructed drain will render the soil perfectly dry, but it is expected that it will free it of moisture and water so thoroughly that air may circulate through it. To illustrate, I will quote Waring: "Suppose that water be poured into a barrel filed with chips of wood until it runs over at the top. The spaces between the chips will be filled with water, and the chips themselves will absord enough to be thoroughly wet. This represents the worst conditions of a wet soil. If an opening be made in the bottom of the barrel, the water which fills the spaces between the chips will be drawn off, and its place be taken by air, while the chips themselves remain wet from the water they hold by absorption. A drain at the bottom of a wet field draws away the water from the free spaces between its particles of earth, and its place is taken by air, while the particles hold by attraction, the moisture necessary to a healthy condition of the soil."

But it is to diseases connected with moisture and ground water that I wish to direct attention. Parkes says that dampness of soil may effect health in two ways.

First. By the effect of the water causing a cold soil, a misty air, and a tendency in persons living on such a soil to catarrhs and rheumatism and pulmonary diseases.

Second. By aiding the evolutions of organic emanations. The decomposition which goes on in the soil is owing to four factors, viz.: presence of decomposable organic matters (animal or vegetable), heat, air and moisture. These emanations are known only at present by their effects; they may be chemical, but more probably they are low forms of life which grow and propagate in these conditions.

An unnaturally moist soil is cold, and is generally believed to predispose to rheumatism, catarrhal affections and neuralgia, and in some way which is not clear, a moist soil produces an unfavorable effect upon the lungs. Dr. Banditch, of Boston, in one of the annual reports of the Massachusetts State Board of Health, furnishes strong evidence in support of the view that a moist soil is a common cause of wasting diseases of the lungs, commonly called consumption. The fact that one-seventh of all the deaths in this State are caused by "consumption" in its different forms, furnishes good reasons for avoiding, as far as possible, risk from disease from this source.

Though not so subtle or so deadly in its effects as the pulmonary disorders just alluded to, the chief drawback to the prosperity of the Wabash valley, if not the entire State, has been malarial fevers, complicated and uncomplicated with either neuralgia, diarrhea or dysentery, and this source of injury, though lessened, has not disappeared, and will not be reduced to the minimun until the soil is drained and further cultivated.

Just what "*malaria*" is, is yet a matter of theory, and I will not tax your time or patience by repeating any one of them in this presence. But it is a well-known fact that there is an agent known by this name, that exerts a very injurious effect on health, and that it is a very frequent cause of the prevailing diseases in Indiana; and whatever this cause is—the poison whose action on the system gives rise to disease—it is originated under a combination of circumstances, one of which is too much moisture in the soil.

In a report to the United States Sanitary Commission, Dr. Metcalf says that all theories, as to the cause of chills and fever, even the most plausible, are entirely unsupported by positive knowledge—yet he adds "this confession of ignorance still leaves us in possession of certain knowledge concerning malaria from which practical good may be derived." He sums up his findings, the result of much work as follows:

First. It affects, by preference, low and moist localities.

Second. It is almost never developed at a lower temperature than 60° Fahrenheit.

Third. Its evolution or active agency is checked by a temperature of 32°.

Fourth, It is most abundant and most virulent as we approach the equator and the sea-coast.

Fifth. It has an affinity for dense foliage, which has the power of accumulating it, when lying in the course of winds blowing from malarious localities.

Sixth. Forests, or even woods, have the power of obstructing and preventing its transmission, under these circumstances.

Seventh. By atmospheric currents it is capable of being transported to considerable distances—probably as far as five miles.

Eighth. It may be developed, in previously healthy places, by turning up the soil; as in making excavations for foundations of houses, tracks for railroads, and beds for canals.

Ninth. In certain cases it seems to be attracted and absorbed by bodies of water lying in the course of such winds as waft it from the miasmatic source.

Tenth. Experience alone can enable us to decide as to the presence or absence of malaria, in any given locality.

Eleventh. In proportion as countries, previously malarious, are cleared up and thickly settled and drained, periodical fevers disappear.

Dr. Chadwick, after an exhaustive study of this subject and search for an available remedy for it states:

"In considering the circumstances external to the residence, which affect the sanitary condition of the population, the importance of land drainage is developed by the inquiries as to the cause of prevalent diseases, to be of a magnitude of which no conception has been formed at the commencement of this investigation. Its importance is manifested by the severe consequences of its neglect in every part of the country, as well as by its advantages in the increasing salubrity and productiveness wherever the drainage has been skillful and effective."

Before the section of State Medicine and Public Hygiene of the International Medical Congress held in Copenhagen, on the 11th of August last, Prof. Crudeli, of Rome, concludes an exhaustive report on the subject of malaria with this statement: The best general remedy to prevent this disease is canalization and drain building so as to facilitate the escape of surface water and to improve the state of the soil.

Although not altogether within the scope of this paper, I may mention the fact pointed out by Crudeli that it is most important to persons living in localities much exposed to malaria, that they have, as far as possible, high and airy sleeping places. History informs us that the Greeks slept on the roofs of their houses, and in malarious districts the inhabitants often used the lofty monuments as sleeping apartments; and the engineers of the Panama Canal slung their hammocks high up between bamboo poles.

In a conversation with Dr. C. G. Comegys, of Cincinnati, during my service with him as his assistant in the Cincinnati Hospital, in 1870, my attention was directed to this influence of air currents in their effects on the course and dissemination of disease. He referred me to the striking examples furnished by Griffiths in his writings and discussion of the sanitary lesson taught through the war of the Crimea. These examples are exceedingly instructive, since they demonstrate to a reasonable certainty that air does direct and control the course of certain filth diseases. Just how much air must be polluted in order to transmit disease, particularly the prevailing diseases of Indiana, is as yet an open question. But experience and observation have decided that our undrained ponds, dirty creeks and wet land, together with heat, are essential in rendering certain agencies that permeate the air a power to do harm. Effective drainage does away with at least many, if not all, of these hurtful combinations and their injurious effects.

Much light on many of the questions hinted at above is expected in the early future. The projected dessication of the Lake of Fucino, near Rome is being carefully studied by Crudeli and Simeoni, in order to determine its importance and effects on public health, as well as its bearing on scientific questions generally. A report on this subject from such skilled investigators must be awaited with much interest.

Inasmuch as observation and experience have established the fact that drainage improves public health quickly and in such a marked degree, it should be largely undertaken by the State.

The little creeks and "branches" partly filled with water, often very unclean in the fall, winter and spring, but dry in the summer, ought to be improved and made into canals, or main drains, as quickly as possible; this portion of drainage, it seems to me, is peculiarly the work of the State and county authorities. Thus the farmers would be furnished with "outlets" and be enabled to tile their fields and pasture lands successfully, and while greatly increasing and improving their crops, be contributing largely to the improvement of the general health.

In conclusion I beg to quote the substance of the findings of a learned foreign commission after a study of this subject:

First. Excess of moisture even on lands not evidently wet, is a cause of fogs and damp.

Second. Dampness serves as a medium for the conveyance of any decomposing matter that may be evolved, and adds to the injurious effects of such matters in the air; in other words, the excess of moisture may be said to aggravate atmospheric impurities.

Third. The evaporation of the surplus moisture lowers the temperature, produces chills, and creates or aggravates the sudden and injurious changes or fluctuations by which health is injured.

"OUR HEALTH."*

BY HON. JAMES H. WILLARD.

The following address was delivered at Purdue University, by Senator Willard, of Bedford, Ind.:

Ladies and Gentlemen:

Civilization in its essence is the protection of the natural rights of man. Every step in the advancement of humanity from barbarism to enlightenment has been a step toward individual liberty and toward the conservation of the privileges of the weak from the encroachment of the strong. The contests of armies, the constitutions of nations, written or unwritten, the great systems of jurisprudence, the gradual extension of the elective franchise, all have had one single objective point—the limitation of the power of man to wrong his fellow-man.

Sanitation—the science of the protection of the public health—has ever been an index of that enlightenment of humanity we call civilization. Like rocks upon which water-marks are visible, sanitation has shown the height and depth of human nature in the cycles of the world's history. In proof of this it is my purpose to trace briefly and succinctly the medical science by millenary periods.

Way back in the dusky twilight of humanity, two thousand years before the Christian era, in the gray dawn of history from the mists of tradition, we find two all-pervading sentiments holding absolute sway over the human mind—the one a recognition of the supreme right of the strongest; the other, blind fatalism as to the omnipotence of supernatural agencies. The first millenary of medical history reveals the power of this fatalism over humanity.

In the Flowery Kingdom the code of the great Mongolian teacher, Hoanti, the founders of the Chinese Nation thronged the pagodas to propitiate the demons who afflicted them. On the banks of the Nile the ancient Egyptians, the true progenitors of civilization, bowed in adoration before the statue of the Sacred Thout, crying aloud to their divinity to appease their sufferings. In the dark night of sorrow, amid the wailing winds of the desert, the great lawgiver and leader of the Hebrew race lifted up the brazen serpent to stay the plague which was decimating his devoted followers. The Hindoos, yielding implicit obedience to Dachsa and Indra, the priests who inculcated the Ayur Veda of the Holy Brahma prostrate on their faces before their domed Dhagobas, mumbled the cabals and incantations which should deliver their bodies from the ghastly gloom of the sepulcher.

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*An address, delivered before the recent Sanitary Convention at Purdue University.

Nor was the Grecian Nation absolved from the common superstition of humanity. Melampus, the soothsayer, with unhallowed rites and mystic ceremonials strove to banish pain. Finally Æsculapius proclaimed himself a divinity for the cure of human ills, and the people yielding to his pretentions deified his personality. Greece was crowded with his temples, his shrines were adorned with all the magnificence of barbaric splendor, the spices of India and the perfumes of Arabia burning in a hundred brazen censers loaded the air with the odors of their incense. All this because the people trusted that the fanes of the gods might prove a secret tabernacle for the cure of diseases of mankind.

Thus for a thousand years we find men yielding to the teachings of priests or necromancers, having as their only hope of cure the direct interposition of some supernatural agency.

POWER WAS THE OUTGROWTH OF PHYSICAL STRENGTH,

Only occasionally transmitted by hereditary descent. Civilization in its true sense did not exist. Sanitation, its index, was necessarily absent.

The next millenary shows wondrous progress. The temples Æsculapius become the first schools of medicine. The priests of those shrines, moved by sympathy, endeavored to alleviate suffering upon which they gazed. The first advance—the greatest ever made in medicine—was the discovery of the effects of opium.

For seven hundred years they labored on and added just seven remedies to their pharmacopea. Finally Hippocrates, "the Father of Medicine," a descendant of Æsculapius, constructed the first actual medical code—the antipathic.

All diseases he ascribed to poisons within the system. His search was for antidotes and he added over five hundred substances to materia medica. His dogmas modified by the Empiric sect were held for over four hundred years. Heraclides, the prince of Empirics, continued these researches, adding many to the antidotes which Hippocrates discovered. Zopyrus, the last of the school, discovered what he claimed was the universal antidote, ambrosia, and wrote the first pharmacopia classifying medicines according to their effects.

Then arose the great Methodic sect, of which Galen was the most renowned exemplar, who first established a system of therapeutics, explaining the operation of medicines according to their elementary qualities. The duration of the Methodic sect embraced a time of great enlightenment. Julius Cæsar had borne the arms of Rome to the utmost limits of the known world. That magnificent city was adorned with all that art could give her. The title of a Roman citizen was the proudest on the planet. Ancient civilization had culminated in the splendors of the Augustan age. Mankind for the first time was protected in its rights under those just maxims of jurisprudence which continue to this day to form the basis of law.

Within the confines of a Roman province the meek and lowly Galilean—the teacher of a band of fishermen—had enunciated those moral precepts which were to pulsate through the emotions of millions yet unborn in coming æons, and accomplish for all time the elevation of the human race. Civilization was in the ascendant. Could sanitation, its index, be absent? Far otherwise; sanitation traces its origin to the end of the Golden Age of the Roman Empire.

As the greatest of medical discoveries, the use of opium, was the first, so the rules of hygiene as at first proclaimed were most exhaustive in their scope. Celsus, the most learned and brilliant of all the ancient physicians, the light of the Methodic school, was the author of the new doctrine, the hygienic regulation of the human system for the prevention of disease. His style in composition was no less elegant than his presentation of sanitary laws was forcible and exact.

Celsus was thorough in every department. He classified foods according to their nutritive properties and digestibility; he fitly appreciated the effects of heat and cold, and was the means of giving to the Roman people a double supply of water afforded by the Aqua Claudus and the Amo Novus, which served for cleansing the streets and was carried finally into the Tiber through the vast Cloaca.

Thus ended the second millenary of medical history—civilization far advanced, Christianity enunciated, the rights of man recognized and sanitation springing, full armed, into action, as Minerva sprang from the brow of Jove.

The third period of a thousand years showed astounding and sorrowful changes. The Roman people, steeped in luxury and corruption, descended from their high position until the Visigoths and Huns overran the Empire of Honorius, and the last vestige of Roman civilization was swept away by the sword of Alaric and trampled beneath hoof-beats of Attilla, the scourge of God.

FROM THE UTTER GLOOM OF EUROPE,

so far as all advancement was concerned in this terrible period, we turn across the Mediterranean to trace medical progress through the dark ages which followed.

Arabia, the land which gave us numbers and perhaps the alphabet, was to bring to human knowledge a science scarcely less important.

Geber, the "patriarch of chemistry," bending over crucible and retort, was to illustrate for future ages the chemical properties of more than a hundred substances, simple and compound, including to a large extent the acids, nitrates, chlorides and sulphates.

Avicenna, the "prince of physicians," a man of most discriminating judgment, compiled into one canon of medicine all that was valuable in the works of his great predecessors, and was the first to describe pharmaceutical preparations.

Indeed, it is doubtful, if all the great discoveries hitherto made in medical science, would not have been lost to the world, had they not been preserved by the unflagging zeal and tireless industry of the great Arabian, Avicenna.

Eastern Europe was the first to rise above the barbarism of the dark ages. The splendid Empire of Constantine was the conservator of the arts of the Latin race, and the close of this millenary, saw mankind once more emerging into the light of civilization.

Under the rule of Alexis Comenus the Byzantine Empire was at the summit of its grandeur.

In Italy the free cities of Lombardy secured to mankind for the first time, the elective franchise in its purity—absolute local self government.

The Lombardian league of cities was the first true limited republic having a constitution whose restrictions were carefully observed by the delegated representatives chosen by the people.

The revival of art was an incident to this protection of the natural rights of man.

We find approximately the same conditions of civilization revived which existed at the commencement of the Christian era.

What then of sanitation? Could there be greater proof that it is a true and complete index of civilization, than the fact that exactly at this time of enlightenment the second great writer on this subject, John of Milan, enunciated his theories?

His great work, "Regimen Sanitatis Salernitanum," remains to this day an authority on the subject of hygiene.

Over 150 editions of it have been issued, and it has been translated into every civilized language.

Upon the precepts of John of Milan, it may almost be said that the science of sanitation, as it exists to-day, has been founded. Our advancement in that science has been due to modes of thought of which I will speak hereafter.

We sweep now into the history of modern times. The gigantic armies of the Crusaders swept over and destroyed the renewed civilizations of Italy and Byzanium. The feudal system placed once more the foot of the strong on the neck of the weak.

The human race once more relapsed into semi-barbarism.

That any remnants of former discoveries in science were not utterly lost in this dark period is due to the devotees of the Catholic Church.

The monks in their lonely cells, hidden in the deep recesses of their monasteries, secure from persecution, absolved from the slavery of feudalism, pored over ancient manuscripts, copied them and preserved them in their libraries.

The Catholic Church also in the period of four hundred years from the time of the crusades to the age of Elizabeth gave to the world the only enlightened physician of that era—Basil Valentine, a German Benedictine monk, who first introduced the internal administratiou of metallic medicines.

The only other name which appears in the medical history of this dark period is a name which illustrates the depths to which the science of medicine had descended—Paracelsus, the quack and sorcerer.

Vain-glorious, pretentious, loud in self-praise, like the irregular practitioner of to-day, Paracelsus, the astrologer, necromancer and exorcist, declared that "his shoestrings knew more than Galen and Avicenna," and he publicly destroyed their works.

Thus medicine sank back to its original barbaric state—the age of the supernatural agencies and the abracadabras talismas cabilas and exorcisms of the arrogant imposter Paracelsus appealed to the fears, hopes and imaginations of an ignorant, superstitious and degraded people. I have traced

THE HISTORY OF CIVILIZATION

and medicine for three thousand years. The Sixteenth Century of the Christian era finds humanity sunk once more into the darkness of barbarism, almost equalling that from which it had emerged over two millenaries before. Sanitation, the index of civilization, was unknown upon the earth.

Was this constant recurrence of civilization and barbarism to continue forever? Were the manacles wrenched from human limbs by ages of suffering with succeeding centuries to be riveted only the more firmly? Was the creature fashioned in the image of Almighty God and endowed with intellect and reason, to be capable of no permanent improvement? Were the waves of barbarism to sweep over the human race with the regularity of the advancing and receding tides on the shores of the ocean? Was humanity on a mighty pendulum in the cathedral of eternity, swinging through the aisles of time, from darkness into the light and from the light back into the darkness again and again in endless iteration? Could this be the fearful destiny of a race of sentient beings? No! There was a better fate for man. In the words of the great Austrian poet—

"Eins ich weiss und das Eine
  Giebt mir Kraft und Zuversicht,
Keine Nacht war je so dunkel,
  Der nicht abgesiegt das Licht,
Keines Winter's Eis so feste,
  Dass der Lenz es nicht durchhieb,
Keines Kerker's Wand so ewig,
  Dass die Zeit es nicht zerrieb",—

there was relief for suffering, sorrowing human nature. It came in two grand discoveries—the one mechanical, the other mental. The art of printing—the art preservative—was to be discovered and used, not only for the enlightenment of the world, but to conserve for all time the records of science and of history. No longer were the discoveries of great minds to depend upon fortuitous circumstances for their transmission to posterity. The hand of Gutenberg, when it carved the first movable letter for the printing press, chiseled at the same time from the solid marble of eternity a magnificent statue of civilization, which shall stand forever in the temple of fame.

The other discovery was even more important. It was the invention by Francis Bacon of a mode of reasoning hitherto unknown to the human mind. It was to change the course of human thought from deductive to inductive reasoning. The deductive method of Aristotle was the descent from some known or accepted truth to the inference that another phenomenon dependent thereon was to be conceded a fact until disproved by actual experiment. The inductive method of Bacon was to ascertain certain phenomena as actual facts, and from them by generalization reach a new truth.

The *a priori* theory of Aristotle was a groping in darkness, as the blind leading the blind.

The a posteori theory of Bacon was as an electric projecting its rays into the darkness.

The great discoveries of modern science, which in the last two centuries have advanced the race more than all the unnumbered years before that time, have had as their basis and foundation the system of reasoning first evolved by Francis Bacon.

In the most complete, the most absolute, the truest sense, he is the founder and author of civilization.

The steam engine, the railway, the steamboat, the telegraph and the telephone —the mighty messengers of our advanced civilization—are the legitimate offspring of the system of generalization of known facts under the theory of reasoning first brought to man's attention by that greatest benefactor of the human race, Francis Bacon.

It is when I contemplate a great discovery like this that I feel the truth of the words which I desire to quote of that grandest philosopher of history, Henry Thomas Buckle:

"The gigantic crimes of an Alexander and Napoleon become after a time void of effect, and the affairs of the world return to their former level. This is the ebb and flow of history, the perpetual flux to which, by the laws of our nature, we are subject. Above all this there is a far higher movement, and as the tide rolls on, now advancing, now receding, there is amid its endless fluctuations one thing and one alone which endures forever. * * * The discoveries of great men never leave us; they are immortal; they contain those eternal truths which survive the shock of empires, outlive the struggles of rival creeds, and witness the decay of successive religions.

"All these have their different measures and their different standards—one set of opinions for one age, another set for another. They pass away like a dream; they are as the fabric of a vision which leaves not a rack behind.

"The discoveries of genius alone remaining, it is to them we owe all that we now have. They are for all ages and all times. Never young and never old, they bear the seeds of their own life; they flow on in a perennial and undying stream, * * * and after the lapse of centuries produce more effect than they were able to do even at the moment of their promulgation."

To no discovery of genius do these words of Buckle apply with such force as to the great invention of Francis Bacon.

When the Pantheon of the future shall be erected, on whose walls shall be graven the great names of earth, as the list shall ascend from foundation to capstone, high above them all let there be inscribed, not the name of Napoleon the conqueror, not the name of Milton the poet, not the name of Shakespeare the dramatist, not the name of Justinian the law-giver, not the name of Plato the philosopher, but on the dome of that imperious structure let there be carved in letters of undying fame, in the clear sunlight of immortality, the name of the grandest of human thinkers, Francis Bacon.

THE METHOD OF REASONING

developed by Bacon, formed the basis of all modern scientific research. Newton discovered the great fact "that the refractive power of transparent substances was in general in the ratio of their density," and the further fact "that substances of equal density, those which possessed the refractive power in the higher degree, were inflammable." By the generalization of these two facts and their attendant phenomena through inductive reasoning, Cavendish and Lavoisier reached the great discovery of the chemical composition of water. For centuries the vast mass of statistics gathered by Tycho Brahe were useless. Kepler finally poring over them, generalized the law of the attraction of heavenly bodies and showed the perturbations in the oscillatory motions of Jupiter and Saturn. Herschell, reasoning in the inductive method of Bacon on these ascertained facts, reached by generalization the conclusion of the existence of another planet, located its proper orbit and turning his telescope into distant space brought to human knowledge the far-off Uranus.

The Baconian method gave a mighty impulse to the development of medical science. Priestley noticing great variations in certain chemical reagents and carefully collecting and generalizing all his facts, reached the conclusion of the existence of an active chemical force yet undiscovered, and finally gave to the world the properties of the great element oxygen. Gomez, the learned Portuguese physician, noticing the varied conditions of the refuse remaining from the distillation of chinona bark, generalized from a large number of observations the existence of many alkaloids and finally produced crystallized chinchonia.

Time would fail to speak of all the wondrous discoveries in medicine made by pursuing the Baconian system of reasoning. The stethoscope and the spygmograph—mighty aids to diagnosis—the various anæsthetics; the discovery of the healing of wounds by first intention—are all the offspring of this mode of thought. What a change also in the development of therapeutics itself was made through this new method of investigation. Previous to Bacon's time therapeutics had practically been simply blind experimentalism—the doctrine of the empiric sect.

Every known substance was given in some shape or other for the cure of disease, and there was no theory so absurd as to the specific effect of some particular drug that it did not find supporters in the ranks of the old physicians. The contradictions, the assertions and counter assertions, the revolutions of theories and the rise and fall of successive sects in the history of medicine, when considered by the ordinary investigator, are enough to confound him—drive him almost to distraction and well nigh force into utter nihilism in the belief in the non-existence of either mind or matter.

The inductive method of reasoning changed all this. It generalized therapeutics into science. It taught a new theory that disease was not to be cured by specifics, but that the duty of the physician was to discover what the symptoms of the patient were which indicated disordered functions, and then assist nature to restore the equilibrium.

Nature is the healer, the physician simply the assistant.

The recognition of this great truth has raised medicine to the elevation of an applied science, so that to-day it bears to the ancient experimentalism the same relation which astronomy bears to the false science of astrology.

Who can estimate the blessings conferred upon suffering humanity by this change in the method of therapeutics?

But if the application of the inductive theory of reasoning wrought such changes in the department of acologia or immatologia, what shall we say of its influence upon prophylaxsis or sanitation?

THE AGE OF BACON

found sanitation an unknown science.

The great truths enunciated by Celsus and John of Milan had passed into temporary oblivion.

But the new impulse given to human thought and human action by the inductive theory of Bacon was to be felt in sanitary science as strongly as in any other department of philosophic research.

Contemplate for a moment the history of the discovery of that most potent of prophylactics, vaccination. Jenner, the poor country physician, studying the phenomena of small-pox, that fell destroyer of millions, strolling over the meadows of England, looking even to the beasts of the field for his facts, collecting year by year more data, testing every observation with the closest scrutiny, until, finally, his long search was rewarded, as by induction he evolved the truth that the disease which destroyed the beauty of the maiden, which struck with blindness one-half of the sightless ones, which decimated the human race, could be eradicated from the face of the earth.

Physicians also addressed themselves to the consideration of preventing that dreaded scourge of the ocean, scurvy, and, carefully considering its surroundings, proved that sufficient vegetable food was hygienic protection from its ravages. The whole tendency of modern thought was now toward the ascertainment and generalization of facts. It was soon found that individual effort was insufficient in this direction. The medical fraternity soon formed themselves into associations, and at every meeting—international, national or local—presented new data for consideration. The result was the annual collection of large numbers of statistics and observations upon all known diseases. It was this united effort of the profession, as much as any other one cause, which has carried both therapeutics and sanitation to their present high plane. The medical associations presented their conclusions to

Legislative Assemblies; they demanded a hearing at the bar of Legislatures, Congresses and Parliaments. They convinced statesmen that a true regard for the interests of the State required sanitary legislation. They proved that the loss of human life by diseases which might be prevented was a direct reduction of public health in the proportion which the loss of the years of productive labor bore to the time to which life might be prolonged by proper sanitary measures Sound political economy, then, required the State to extend this protection, not to the people of the country alone, but to the capital and the labor, which aggregated so large a portion of the public wealth. Hence, sanitation by boards of health has become one of the recognized public functions of government. Such has been human progress under the influence of the Baconian theory of induction.

To-day we find mankind protected in all civil rights; the weak within the "awful circle" of the law, safe from the assaults of the strong; the poorest citizen of a free ballot controlling the destinies of a nation, and amid the ranks of the advancing legions of humanity, civilization and its index, sanitation, stand together with their faces to the front, looking forward to a still more glorious future. What that future shall be, so far as sanitation is concerned, must to a large extent be determined by the medical profession. The Nation and the State have placed in the hands of medical philanthropists a mighty agency for advancement in this direction by the establishment of boards of health. It should never be forgotten that the enlightenment of the people on hygienic subjects is a condition precedent to sanitary advancement.

Legislation will not come in advance of popular demand, and experience has proven that even the enforcement of law can not be successful against public disapproval.

The people of Indiana are, at the present time, undoubtedly educated to the point of demanding protection from the charlatan impostor and epiric.

Legislation will follow in this direction; it should have come years ago.

But the law on this subject should be conservative.

RADICAL CHANGES

always arouse popular antagonism.

The object of the law should not be to afford business protection to regular physicians—they do not need such protection—but it should be to secure the people from having their health and lives placed in jeopardy by the ignorant practitioner or the swindling quack. While this class of legislation will be of great benefit, it is insignificant when compared with the mighty forces which will be brought into action when the people shall properly understand the results which may be reached by sanitary legislation.

Chadwick, the most renowned sanitarian of England, in establishing a norm by which the death rate should be calculated, has proven—not stated, but proven—that the death rate should not exceed twelve per 1,000 annually.

If this could be reached, the average duration of life should be not less than seventy-five years.

It devolves upon physicians as humanitarians to educate the people to the fact that the lives of human beings are, under the present sanitary circumstances of the world, ruthlessly sacrificed at a most fearful rate, and that by sanitary restrictions properly enforced, this sacrifice could be averted.

Does any one despair of educating the public mind to an appreciation of the great truths af sanitary science?

Does the labor seem too arduous and too long?
Remember that difficulties vanish as men become better acquainted with them.

"The mighty pyramids of stone,
Which, wedge-like, cleave the desert airs,
When nearer seen and better known,
Are but gigantic flights of stairs."

To be educators of the people implies, however, thorough knowledge of the subject taught. The teacher must study carefully himself, dig deep into the mysteries of fact and science, and by the aid of logic and illustration, enforce the truths he has discovered.

The microscope, the greatest agent for the advancement of science, is in the hands of every skillful physician

The discoveries made through its use in the last decade by Pasteur Koch and Eklund, should arouse the energies of the medical profession.

When the great German microscopist discovered the bacillus tuberculosis as the cause of consumption, he practically appealed to every humanitarian on earth to discover a means to annihilate that disease.

It is possible that the medical profession, when medicine has risen to the dignity of an applied science, will still permit consumption, its cause being known, to destroy one-sixth of the human family?

Is the profession folding its hands willing forever to avow that the hectic flush on the cheek of youth must be the auroral flashing, heralding with certainty, the approach of the cold winter of death?

Other diseases have been shown by the miscroscope to be preventible, and the researches in this direction should be continued. Many other problems are presented to the sanitarian.

Are the monoblastic or diblastic theories of contagion advanced by Naegli true? To what extent do the microphytes and microdemes, commonly called bacteria, contribute to the production of contagion and how may their growth be arrested?

What methods, other than quarantine, are available for the prevention of epidemic diseases, including inquiry as to how the specific poisons of epidemics are developed and diffused?

Inquiry should also be addressed not only to the avoidance of diseases, but as to the best methods of removing the causes, for disease can not always be shunned. This includes, in this State at least, the question of the drainage of swamps, the clearing of rotting timber from streams and the best method in general of removing decaying organic matter for the prevention of malaria.

Statistics of deaths and births should not only be demanded and accurately kept, but there should also be a local registration of diseases in order that their causes may be studied and future visitations, if possible, be prevented. When the sanitarian shall fully understand these matters himself, and shall present his observations and conclusions to the people through medical associations and local Boards of Health, and, best of all, through those great public educators, the newspapers, there will be such a demand for proper sanitary legislation as never was dreamed of heretofore.

Progress can lie only in the education of the people to a knowledge of the truths of sanitary science.

Any legislation which is not founded on the recognition of this truth will most certainly fail.

When the people shall be brought to realize the fact that their lives can be prolonged on an average more than thirty years by proper sanitary regulation they will as surely demand that the law shall give them this protection as they now demand security from the sand-bag of the highwayman or the torch of the incendiary.

In this education of the people let every humanitarian persevere, remembering that it is the old search after the elixir of life, but now made not amid the drugs and panaceas distilling in the retort of the alchemist, but to be attained by the prolongation of human life through proper sanitary measures to that time when, by the failure of the natural powers of man, living shall cease to be a pleasure.

THE NINETEENTH CENTURY

is the acme of the ages. From its lofty summit we can look over the plain of bygone eras and into the vista of the future. On the far-off horizon of the past, in the dim half-light of history, we see humanity commence the struggle for its rights; the contest is against the demons and goblins of superstition, and the distant scene seems wrapped in almost cimmerian darkness; but the light breaks through, the minions of superstition flee away, and half way across the plain we see a splendid city rising on seven hills; we see the forum for the protection of human rights, the coliseum for the amusement of the populace. The scene changes; dark clouds of war sweep down; savage hordes devastate the fair city, and we see humanity, vainly struggling, sink beneath the trampling feet of oppression; then all is silence. At last one hand raises on high the torch of intellect; hundreds rally around it into the light; then they come by thousands. The procession marches into the glorious sunlight of the present, and at our feet 50,000,000 devotees to freedom shout their loud huzzahs as they lift on high a new banner, on whose folds are inscribed the words, "Civil liberty and equal rights;" and now the millions of humanity march forward, at their head Civilization and its index Sanitation, pass step by step through the gateway of the future toward still grander victories; side by side they march along over the plain toward the hights of science; hand in hand they go together into the brightness of that time when every human being shall be protected in his property, his health and his life. And now over the vista of the distant future there breaks a light of such brilliant effulgence that we can look no longer, but we know that "it is better further on."

In this grand march of human intellect every sanitarian should be a soldier. In this onward progress there can be no retreat. In this contest for the purpose of giving to man the right and the opportunity to live the years which God intended him to live, there can be no defeat. Reverses may come, disappointments may come, obstacles may be met, but the true humanitarian should press ever onward with the firm conviction that where victory means the salvation of the lives of millions, there can be no doubt of final triumph.

> "Battle ever, struggle bravely,
>   Send a legacy sublime
> To the homes of distant ages,
>   Down the circling course of time."

FOODS.

BY J. N. HURTY.

Organized structures and vital processes must be continually renewed and maintained; and all substances, whether solid liquid, or gaseous, which will perform this office upon introduction into the body, are foods. A medicine modifies vital action, but supplies no sustaining material. Some foods are very rich in nutritive qualities, and there are still others that increase vital actions in a degree far beyond the amount of nutritive material which they supply. An ideal food need not contain every substance necessary for the building up of the body, but should possess about equally nutritive and stimulant power. Some foods are identical with certain structures of the body, and being introduced, may be incorporated with little or no change.

The mineral matter necessary for the growth of bony structures, and water the general necessity, are illustrative of that class of foods which undergo no change prior to assimilation. Those foods that supply the greatest number of substances required by the body, are the most valuable, and may be known as compound foods; whilst others which supply but one element, or which are incorporated without change, may be termed simple foods. Some foods are valuable, not so much because they are very nutritious, but because they are easily and quickly changed into the substances of the body; or again, because they act quickly in sustaining the vital functions; such foods are classed as easily digested and assimilated foods.

Economical foods, can be so termed, because of their small cost, or the cost may be secondary, provided the nutritive value be great. The source of foods may be used as a basis of classification; as for instance, animal and vegetable; again they may be classed in accordance with their chemical composition; as carbonaceous or nitrogenous or non-nitrogenous etc. Foods may be termed flesh-forming or heat-producing, and they also possess qualities which permit of sub-classification, such as bitterness, sweetness, acidity. A close study of the effects produced by foods apart from or in addition to those of nutrition, both properties not being common to all, may form a further basis of classification. As to effects, some foods more than othere influence the action of the heart, lungs, skin, bowels or other vital organs, while others have antagonistic qualities, so that one may neutralize certain effects of another. The derivation of foods is general, all the great divisions of nature contributing. Earth, air, and water, add their part. Substances, animate and inanimate, organic and inorganic, solids, liquids, gases; not all kinds, but kinds of all forms are used.

A comprehensive idea of food being a solid substance derived from animals or vegetables, is the popular notion, but erroneous, being too exclusive. Mineral matter and water, as also air, are foods, inasmuch as they supply waste, and sustain vital action.

Organized matter, fit for food, is frequently combined with water and mineral matter. All vegetables contain water and also mineral matter, as also do meats of all kinds. The solid carbon, and the gases hydrogen, oxygen and nitrogen, make up the major composition of foods. In chemical composition, both animal and vegetable foods are similar; an indissoluble bond seemingly existing. The vegetable draws water and minerals from the soil, as also matter containing nitrogen, when it happens to be a component part; and from the air by far the greater portion of its carbon is obtained. The animal eats the vegetable, incorporates it into his economy, retaining but a very small proportion permanently, and after it has served his purpose, rejecting it in a metamorphosed condition, to become again food for plants. Even after death, no matter what disposition be made of the animal body, its material must go to promote vegetable growth. The very bones, disintegrate under the silent but irresistible energy of decay, and furnish pabulum for plants. Hence there is not only an unbroken circle in the production of food from different sources, but even the same food may be shown to be produced from itself. Surely this is an illustration of the fable of the young Phœnix arising from the ashes of its parent.

In our bodies the structures must be maintained, and heat generated. This of course is accomplished through that incomprehensible force, termed vitality, or life. As to heat, it must be maintained undiminished; but the structures will waste with the decay of life, despite the abundant ingestion of reparative material. It seems then, that one's assimilative powers for heat-producing elements, can cease or diminish only with dissolution; while one's reparative powers, gradually fail, commencing probably when maturity is reached. The production of heat in the body, so wonderful in the process and the amount, results only from the chemical combination of the elements of the food. This may happen in two ways—First, by the chemical union of the atoms of the structures, a phenomenon which always produces heat; and second, by respiration, which may be called the combustion of food.

It can be shown that an ounce of fresh lean meat, if *entirely* burnt in the body, would produce heat sufficient to raise seventy pounds of water 1° Fahrenheit, or a gallon of water about 7° F. In like manner, one ounce of fresh butter would produce ten times that amount of heat; but in connection herewith, it must be remembered that *entire* combustion within the body is not always complete, and hence the actual effect is less than here indicated. From these last considerations we might be inclined to classify all foods as either flesh formers or heat generators, but we must remember that it is very possible that while a food is generating heat, it also may be forming flesh. The duty assigned to food, is to supply to each part of the body the very same kind of material that it lost by waste. The renewing material must be of the same substance as that wasted; bone must be renewed by bone and flesh by flesh. It is meant here by this, that foods must have the same composition as the body, or supply such other materials as by vital processes may be transformed into the substances of the body.

The principal materials of which the body is composed are, first, flesh which in its fresh state contains fibrin, water, fat, albumen, gelatin and various salts; second, blood, not materially differing in composition from flesh; and third, bone, composed principally of mineral matter, combined with phosphoric and other acids, together with cartilage, gelatin and fat. The elements composing these structures are ceaselessly, because of the wear and tear incident to life, changing from organized to organic forms, and then eliminated as waste. To supply this waste is the object of food; and while our appetites are good guides for our food needs, our intelligence should be called into use and control the kind, quantity and quality of our aliment. Nature has made bountiful provision as to varieties of foods; quantity always being commensurate with the amount of intelligent labor put forth for its procurement; there are then no economic reasons for food adulterations, and as there exists no excuse whatever for a lie, substitutions and surreptitious admixtures are to be condemned. Milk, that most perfect of all foods, has been proven to be generally of good quality in this locality. Cows' milk being used exclusively hereabouts, it is of course understood that none other is meant by the term milk. Milk may be pure, that is the simple lacteal secretion of the cow, and yet not be a fit food. Milk that is too new, by which is meant that which has been taken too soon after calving, is not a healthful nor a pleasant food. It is then yellow, thick and stringy, being called colostrum by milk-men, and others "beastings." This state of the milk lasts from three to four weeks; having the above features specially marked during the first ten days. From the end of the first to the termination of the third or fourth month, the milk is in its best condition. It then consists of water holding in solution caseine, a peculiar sugar, called sugar of milk, also various salts; and in suspension, fatty matter, in the form of myriads of semi-opaque globules, to which the color and opacity of milk is due. The average composition of milk, as taken from twenty-two analyses of the genuine article, is as follows: Water 87.90 per cent.; fat 3.15 per cent.; solids, not fat, 8.95 per cent. The highest proportion of fat found was 8.31 per cent., the lowest 1.60 per cent; the highest per centage of solids, not fat, 9.98, the lowest 7.24 per cent. A determination then, by chemical methods, of the water, fat and solids not fat in milk, does not furnish data from which to judge absolutely the purity of milk. It is to be observed, however, that it is rare to find pure milks which contain less than the average percentages given above of the three ingredients named. An analysis does give most plainly the quality of a milk; and it would not be unfair to require dealers to furnish an article containing not less than 2.5 per cent. of fat, and 9 per cent. of solids not fat, thus allowing 88.5 per cent. of water.

As at first stated, I have found only a very few instances of watered milk in this locality, no other kind of adulteration being discovered. The often referred to admixture of chalk, probably has occurred in a very few instances, but its practice is not now known. The specific gravity is not good evidence from which to judge the quality of milk. When this test is used, the milk-man is afforded an admirable opportunity to add water in large quantity to his merchandise, for he has simply to maintain its density by adding glycerine, glucose, etc. The animal's health obviously affects the milk. Lean and sickly cows can not give rich and healthy milk. Some dairymen, for purposes of profit, continue the milking of their cows too long; five, or at most, six months, should be the limit of time. Sometimes cows are permitted to become with calf so short a time as three months after calving, and milking kept up during the period of gestation. It certainly is not to be expected that the animal can keep up two such processes healthfully at the same time.

As might be supposed, the character of the food, influences materially the quality of the milk. Stale, musty grain or meal, as also sour starch and distilling refuse are not conducive to health, and hence affect the milk. Swill-fed cows have diarrhea rather constantly, and their milk lacks fat; that is, is deficient in richness. Such milk also frequently contains low forms of animal life, and presumably contains disease germs, and hence be a prolific cause of sickness.

Skim-milk, butter-milk, cream, butter, cream-cheese, and ordinary cheese, are only modifications of milk, differing only from each other either in the abstraction of one or more of its constituents, or else in the variation of their proportions.

Skim-milk differs from ordinary milk only in containing a less quantity of fatty matter, and is much neglected as a food. Skim-milk is only very little less nutritive than the ordinary kind and being much cheaper and not as liable to adulteration, should be more in demand.

Butter-milk approaches skim-milk in its composition, containing a little less fat, and also, usually, an acid in small quantity, termed lactic acid. In nutritive power, butter-milk is not the equal of skim-milk, but the slight amount of acid it contains makes it very acceptable both to the palate and stomach; is also very refreshing, and is an aid to digestion. Being much used during the summer months, and as the supply is at that time very frequently less than the demand, thin butter-milk is very frequently met with. To establish a standard of excellence for butter-milk, would be somewhat more difficult than the establishing of a standard for sweet milk, and hence it can be said to be watered only when its thinness and insipidness are palpable to the sight and taste. Cream should consist almost entirely of the fat, with a very small quantity of the other milk constituents. Cream of first quality is very thick and heavy, possessing a yellow color. The article furnished by the creameries here, while passably good, can not be called first quality, containing as it nearly always does, an undue proportion of the other constituents of milk.

Butter differs little from cream, but is more completely separated from caseine, sugar and salts; and the great majority, but not all the fat globules, in place of being free and distinct, have run together so as to form a semi-solid substance. It has been contended by some writers, that butter serves only as a lubricant, it being only very slightly if at all digestible. In the milk form, the fat is easily digested because of the minute division of its particles; but in the degree that we impart solidity and compactness, in that degree we destroy its digestibility. The argument seems plausible, but lacks sufficient experimental evidence. For instance, the fæces do not contain a proportion of fat commensurate with the amount of butter ingested, to say nothing of other fats. Again bread and butter produce nutritive effects which bread alone can not produce. We may justly regard butter as a valuable addition to our diet, even though it be not a food when eaten by itself. It certainly enhances the toothsomeness of bread, and especially of hot rolls. Baked potatoes too, when hot and accompanied by good butter, give great pleasure to the sense of taste. When properly made, when fresh and sweet, we have all learned to like it, and we cry with one accord, let him be accursed who dare do aught to detract from it—yet this very thing is done. We find all grades, and a multitude of substitutions too, also of different qualities, not only offered for sale, but continually finding their way onto our tables. We find here for sale by grocers, according to their word and possibly belief, but two butters, namely, creamery and country, the creamery brands always commanding the highest price. The much heard of oleomargerine, can never be purchased from any grocer, but probably might be found either farther up or down the street at Mr. C.'s stand. Creamery butter is the well and neatly packed tub kind, from factories called creameries, supposed to be conveniently located in rural districts, by the side of cool and babbling brooks. It is true, some few are so located; but yet again we find many within great cities on some narrow street, in dark cellars lighted by the refulgent coal oil lamp. Almost all creameries pursue the same process and use machinery of like character. Their churns are simply rectilinear boxes, which being supported by shafts proceeding from their ends, are made to revolve; this agitation effecting the gathering together of the fat globules contained in the cream, butter is formed. The masses of fat are then taken from the churns, properly worked by machinery to remove adhering milk, and is also salted at this stage, and lastly packed in tubs holding about forty pounds. The top is then covered with a wet white cloth, and plentifully sprinkled with fine dairy salt. The uniform golden color of this kind of butter, is secured by using a vegetable coloring matter called annatto. This material is supplied by chemists or others, who prepare it for the creameries use by grinding and dissolving it in flax-seed, cotton seed, or other vegetable oil, thus presenting it in the most available form. No objection can be made to the use of this coloring matter, for it is not injurious to health in any way, and moreover it is necessary to use but very small quantities, while the appearance of the butter is materially improved. Creamery butter keeps better than the country article, principally because being worked by machinery, it is more thoroughly freed from adhering and enclosed butter-milk, which if allowed to remain, rapidly ferments and spoils, contaminating the surrounding fat, and produces what we term rancidity. The more uniform and exact salting of creamery butter, also contributes to its keeping qualities. I have found this kind of butter to contain on the average, 8.5 per cent. of water, and 3.7 per cent. salt. It is to be noticed that creamery butter does not possess that full and satisfactory odor and flavor, that "cow's breath" characteristic, by which our mothers' make was distinguished. This difference is caused by the thorough working just spoken of, removing the milk, which carries, in a great measure, the odoriferous substances; pure butter fat being by itself quite odorless.

Creamery butter, when made as here detailed, is honest and deserving of patronage; but sad to relate, it sometimes is largely mixed with "oleo," an article which is a beef fat of special preparation. Not only has creamery butter been found mixed in all proportions with "oleo," but "oleo" pure and simple, flavored by being churned in milk, can be found at all times, being sold as creamery. Oleomargerine, when properly made from healthy beef fat, is unobjectionable. It might be contrary to our prejudices to use it, but on the score of healthfulness and its general appropriateness as a food, it can not be rejected.

The best "oleo" is prepared from cane fat, a name applied to the fat in the neighborhood of and found adhering to the animal's kidneys. The modus operandi, is to remove the fat carefully, picking it over to exclude objectionable particles. It is then thrown into large vats of tepid water; any pieces showing blood stains being thrown into a special vat for extra washing. After soaking for an hour in the tepid water, the fat is thoroughly washed with cold water and then covered with fresh cold water, and left another hour to soak; it is then assorted. The pieces rich in oil are severed from the rest by a skillful cut, the assorter throwing the finer pieces into an adjoining tank for another washing, and the pieces less rich in oil into tubs to be transferred to the tallow factory. The fat for butter making is now carefully washed a third time, then transferred to the apparatus for hashing and melting. The object in hashing is to disintegrate the fat, thoroughly breaking up the tissues so that the oil will separate therefrom at a low temperature. This is necessary to prevent the development of the rank tallowy flavor which results from the action of heat, when allowed to rise too high. From the hasher the fat is conveyed to the melting tanks, a series of caldrons jacketed and surrounded with water. The water is heated by steam, and in turn heats the fat, which is melted at a temperature of from 122° to 124° F. When the fat is thoroughly melted, the particles of membrane settle to the bottom, forming scrap, and a thin film of white emulsion of water and oil forms on the top. The latter is removed, disclosing a clear yellow oil, which, upon being drawn off and allowed to stand, in a few hours becomes a semi-solid, quite granular, being rendered so by the crystallization of the stearine. The next step is to submit the now thoroughly chilled and granular fat to pressure. This results in separating a bright, sweet and practically odorless oil, from the equally odorless but solid stearine. To convert this oil (oleo) into butter, it is necessary for it to undergo the process by which fat is converted first into cream and then into butter in the udder of the cow and in the churn. In the cow's udder, body fat is converted into milk fat known as cream, by the action of a principle existing in milk known as mammary pepsin. This change is affected by the fats being minutely divided or emulsionized and the formation of a class of soluble odorous principals, which impart the peculiar flavor possessed by milk. To accomplish this end artificially, the "oleo" is churned in fresh milk most vigorously. This effects no change in the "oleo" other than to impart the milk odor and flavor to a limited degree. After this last operation the butterine is completed, there remaining now simply the forming into rolls, or packing in tubs for the market. The wholesomeness of this product as an article of food can not be questioned. It is only when it is put forward and sold as butter made from cow's milk that we may object, for then is deception and fraud practiced. Oleo and butterine, like true butter, are not always prepared from first-class materials, but when this is the case it is generally discoverable to the senses.

The comparative compositions of natural and artificial butter are shown in the following analyses. Upon superficial examination it will appear that there is no very great difference, but a close analysis of the figures in a chemical light discloses a wide difference:

CONSTITUENTS.	Butter.	Butterine
Water	11.968	11.203
Butter Solids	88.032	88.797
	100.000	100.000

The butter solids are made up of soluble and insoluble fats, caseine, and salt, as follows:

Insoluble fats	Olein Palmitin Stearine Arachin Myrstin	75.246	81.183
Soluble fats	Butyrin Caprion Caproin Caprylin	7.432	1.823
Caseine		.192	.621
Salt		5.162	5.162

Oleo, as known to the butter trade, is simply the expressed bright, light yellow, sweet and odorless oil spoken of above. This is sold to creameries, and also to farmers, just as it is or after it has been churned in milk, for the purpose of admixture with natural butter. It is possible, if skillfully done, to deceive any one as to the true character of this product, an elaborate chemical analysis only determining its composition.

As before remarked, it is of common occurrence to find this butterine, pure and simple, being passed off as natural butter, and again to find it and natural butter mixed in various proportions. It is possible, without fear of easy detection, to mix for adulteration purposes, butter and a prime article of lard. This has frequently been done, but is not practiced, so far as the writer has been able to discover, in this locality. Abroad, butter has been found loaded with insoluble, inert powders, excessively salted, or again incorporated with a large quantity of water. Starch has been reported to have been found admixed with butter. This is a very bungling adulteration, being very apparent to the taste, even when present in very small quantity.

LARD.

Lard is the oily portion of the fat of the pig. The process by which this is separated from the fibrous, and vesicular tissues in which it is either inclosed, or by which it is surrounded, is called rendering. The fat which immediately surrounds the kidneys yields the best and purest lard; this is owing to its being in a freer state, that is, it is less highly organized. Good and pure lard should be entirely free from either taste or smell; it should be firm and white, and when melted be almost as clear and transparent as water. Subjected to a temperature of about 212° F., it should liquify without ebullition, thus showing the absence of water, and should not throw down a particle of deposit. Inferior or adulterated lards possess charactres and properties almost the reverse of these. The melting point of good lard, varies from 78.5 to 87.5° F. Its proximate composition is about as follows: Stearine and margarine 38 per cent. elaine 62 per cent. The chief adulterations resemble those of butter. Starch has been known to be added to impart whiteness and body, so also has alum, china clay, and slacked lime; but the general sophistication is water and inferior fats. Lard renderers usually try out all the fat in the hog's body, mixing the firmer, sweeter and better article from the selected leaf, with the inferior kinds obtained from "gut fat" and other objectionable parts.

Dead hogs, by which is meant those that are smothered, or die from exhaustion or disease on the cars, are all carefully economized at the stock yards of all cities. The whole hog is rendered and yields a grease white, sweet and firm. This is purported to be sold to soap makers, but again and again it has been traced to places where it was sold, just as it was, as straight lard. Again it has been known to be mixed with "live hog grease," and then sold. Very inferior colored, odorous greases, are produced in all pork-houses, and are frequently, by chemical processes made white and odorless, and then mixed with better qualities and sold as lard. These inferior lards all give a pronounced and characteristic stuffy odor when burnt, and impart a taste to pie crust and like articles of food, far from pleasant. They are sometimes heavily salted, and chemical examination usually discovers sal soda or quick lime, which has been added to neutralize fatty acids and impart whiteness. "Dead hog lard," is certainly very undesirable, to say the least, and may be poisonous. It is known that in dead bodies, are generated poisonous alkaloids termed, ptomaines, which when introduced into the human stomach produce very alarming toxic symptoms, and frequently death. It is to be expected then, that hogs smothered in overcrowded cars, or perchance dead of cholera or a fever induced by exhaustion, would contain these poisonous compounds, which, of course, would appear in lard or other product from them. How very criminal it is to offer this vile stuff for sale for consumption as food.

Bread, the staff of life, as found for sale in Indianapolis, has not been found, by the writer, adulterated. The law makes no requirement as to the weight of a loaf; and if off grades of flour have been used, skillful manipulation, and not the addition of chemicals, has sufficed to cover it up.

BAKING POWDERS.

A baking powder is any mixture of chemicals, which, when it is properly mixed with flour, meal, etc., serves to lighten and make dough porous. It is hard to determine what may be considered an adulteration in baking powders. It might be said that anything injurious to health would be so classified; but there are some who maintain that all possible baking powder mixtures are unhealthy. One merchant advertises that he makes "a pure baking powder," another, his is "a pure cream of tartar baking powder;" the difference is, that one specifies the kind of powder he furnishes, the other contenting himself with the statement that his is pure. It is obvious that an injurious mixture may be composed of pure materials, and hence it is desirable to know the composition of a baking powder, before using. The construction of a baking powder is simple. The first requisite is some gas furnishing solid, which can be made to part with its gas by simple chemical decomposition, after admixture with flour, meal, etc. Such a substance is bicarbonate of sodium, and it forms the basis of all baking powders. As its name implies, this salt contains in a state of chemical combination, a large percentage of carbonic acid gas, a large proportion of which can be disengaged by heat alone, while the remainder may be easily displaced by an acid. There is, however, only one acid existing in dry powdered form, fitted to be mixed with bicarbonate of sodium for baking powder purposes, namely tartaric acid. This acid is made from cream of tartar, which is an acid tartrate of potassium. Cream of tartar acts as a gas expeller by virtue of the excess of tartaric acid it contains, but weight for weight it has not near the same power as tartaric acid.

Alum, a sulphate of alumina and potassa, having an acid reaction, will combine with bicarbonate of soda, expelling its carbonic acid gas, and hence is used in baking powders. Another salt, the acid phosphate of calcium, possessing the gas expelling quality, is also used. Now when we have mentioned amonium carbonate, the list is complete of materials from which we can make mixtures for baking powder purposes, furnishing upon solution the gas desired. With these substances when mixed, a diluent is always necessary to prevent them from combining upon keeping. If the base, bicarbonate of sodium, were mixed with tartaric acid, cream of tartar, or other gas expeller, the mixture would soon absorb moisture, become lumpy and enter into combination, whereby the gas would be lost and its value for bread raising purposes destroyed, hence the necessity for a diluent to prevent this change. In starch are found all the properties which adapt it for this purpose. Starch in powder will absorb considerable moisture without becoming lumpy, is perfectly neutral, and is passive in such mixtures as we are considering, and besides is one of our staple foods. Terra alba has been used for diluent purposes, as it answers in every respect, except that it is not a food, and while not poisonous, its habitual ingestion will surely prove injurious. It should be classed as an adulteration. The proportion in which these ingredients are mixed, is a matter of some moment. Equivalent quantities should be used, that is, to a given quantity of bicarbonate of soda, no more nor no less acid should be used than is just necessary to combine with the sodium, thereby expelling the entire combined carbonic acid gas, yielding a normal salt. No more powdered starch should be added than will suffice for the purpose intended; a very large quantity would be an adulteration, as it weakens and cheapens the mixture.

Bicarbonate of sodium, tartaric acid, cream of tartar and acid phosphate of calcium, are uniformly regarded as not unwholesome, but ammonia, and especially alum, are objected to by some.

As regards carbonate of ammonium, I am certainly safe in saying it can not prove inimical to health, because the heat of the oven will entirely dissipate it, as it is readily volatile at a much lower temperature than is necessary for baking bread. It depends, too, upon this very property of volatility for its value as a lightener of dough; for when transformed to a gas by the oven's heat, in its struggle to escape, the effect sought is obtained. Much ado has lately been made by certain baking powder makers, about the origin of ammonia, as if that should condemn its use.

The facts are, that ammonia being composed of the two gases, nitrogen and hydrogen, it matters not how manufactured, the result when the substance is pure, is always the same. It is simply a trade dodge then, to advertise, that inasmuch as ammonia is found in manure, urine, and all decomposing matter, that therefore it should be held objectionable. When it was first discovered that some baking powders contained alum, a great outcry was raised. The well known injurious effects of this substance, when taken into the stomach, were detailed in full, and the conclusion quickly reached, that the worst results imaginable would attend its use. A cursory study of the changes which take place when alum and bicarbonate of sodium react upon each other, results in the conclusion that no evil effect need be apprehended. Alum, the sulphate of alumina and potassa, consists of the two bases, alumina and potassa, held together in chemical union by the third factor, sulphuric acid. When, then, this combination is brought in close enough contact with bicarbonate of sodium, double decomposition ensues, sodium and potassium sulphates and alumina being found, and carbonic acid gas liberated.

All the products of the decomposition, except the gas, remain in the dough and are, of course, eaten with the loaf. Alum, then, no longer exists, an entirely new set of compounds taking its place. It is obvious, then, that unless these new compounds be unwholesome the objections to alum are no longer applicable. This is indeed the case. The sulphates of sodium and potassium are harmless salts, it being necessary to administer large doses to get even a very slight cathartic effect; and as neither is accumulative or in any way attended with ill effects, they need not be feared. Alumina is an insoluble, inert powder, and may be taken in very large quantities without perceptible effect, and hence it too is unobjectionable. The only precaution necessary is the one first mentioned, that in mixing these chemicals, equivalent proportions be carefully observed, so that the alum may undergo complete decomposition. Acid phosphate of calcium is made from bone ash—which is principally the phosphate of calcium—by treating it with sulphuric acid, which has the effect of engaging a part of the calcium, setting free an equivalent quantity of phosphoric acid, which in turn forms with the unchanged calcium phosphate, the acid phosphate of calcium. This substance is entirely unobjectionable; on the contrary I believe it a desirable addition to our bread. Our very fine grades of flour are irrationally deprived of this very necessary substance, and its use in baking powders would supply this bone and nerve food, which the advocates of snowy white rolls and bread insist upon eliminating.

DOMESTIC SANITATION.*

BY HON. WILL CUMBACK.

Ladies and Gentlemen:

The importance of the subject we have met to consider can not be overestimated. Perfect health is the choicest blessing given to man. How to secure it, and how to retain it, are the most important questions ever presented to an intelligent mind. Health is the foundation principle upon which rest all our hopes, our happiness, our success, our everything in this life. Such are the intimate and mysterious relations between the human body and the human mind that when the former is diseased the latter is in like manner disordered. Hope, happiness, and often reason, flee when the body is diseased, and the invalid becomes a burden to himself and a source of trouble and anxiety to all interested in him.

Disease is the penalty for violated law. If the human race would study the laws of hygiene, and would try to know the mysteries of their own being, and faithfully observe what is required, the roses of health would adorn every cheek and the light of hope and joy would flash from every eye. The brain now clouded and befogged would be clear, and an impetus would be given to progress and civilization that would disclose how, in its pitiless fetters, disease binds and holds back the energies of the human race. Mental and physical weakness would not begin at three-score years, but a whole century would be required to exhaust the power and usefulness of the improved man. He would not only double his power and happiness, but he would also double the years of his life. The riper and richer experiences of his life, now lost, would be an incalculable benefit to the world. Men die now just as their lives begin to be of the most value to mankind. It takes a man a half a century, even if he is blessed with health, to know himself and his fellow-men. In no less time can he gain even an imperfect knowledge of the duties and obligations growing out of the relations existing between him and them. Even if he is not hindered and fettered with disease, he can not know how to meet all that is due to his God, his country and his fellow-men, until two-score or more of years have steadied the impetuosity of his youth and reason and experience have cooled the fervor of his hope and imagination and so trained his judgment as to show him how he can best fulfil his mission in life. The human race, inheriting the seeds of disease, and then disobeying the laws for the preservation of health, die just as they ought to be at the prime of life.

If the present generation were to begin *now* to study and to faithfully practice the laws of hygiene, while they could greatly improve their condition every way, they would still have to combat the ills they have inherited.

It would take two or three generations to eliminate the diseases that are hereditary, but it could be done. Nature, the great physician, is constantly struggling to expel the diseases that are born with us, and if she were reinforced with a life obedient to the laws of health, she would in the end succeed in expelling from the human body all the diseases that flesh is heir to.

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*An address delivered before a Sanitary Convention at Greensburg, Ind.

It seems strange that an effort has to be made to create in the public mind an interest in a subject of such vital importance to each individual.

It is a matter of astonishment that we are so ignorant of the rules and regulations, the observance of which would add so much to our comfort and our power. Even the quality and quantity of food we ought to eat, the hours of sleep we require, the kind of clothing we should wear, and the amount of labor we can perform, either manual or mental, are matters that most of us know but little, and stranger still, we care still less. We constantly violate the laws of health, and groan and complain when the penalty is inflicted as it surely will be. In this department there is no forgiveness of sin, yet the certain and speedy infliction of the dreaded penalty does not produce reformation.

In the country the farmer will breath the malaria from a pestilence-breeding pond year after year, until his whole system is poisoned. He aches with the chills, and is scorched with the fever, and has added neuralgia to complete his misery, yet he rarely inquires as to the cause of his ill-health, and if he knows he will not spend a day to remove the source of his trouble by draining the pond. In the towns and cities dwellings are crowded together, and the garbage and slops from the houses are thrown in the streets and alleys, and from the rotting mass comes the deadly typhus, or the pestilence that walketh in darkness, to kill and destroy the people. Centuries came and went, before any steps were taken to avoid such a calamity.

The preservation of the public health everywhere, is a proper subject of legislation. The public mind is becoming more and more awakened to this subject, and laws are being enacted that will to some extent remedy the evils that have so unnecessarily afflicted the human race. But to make legislation effectual to remedy any evil, there must be an enlightened public sentiment in regard to it. It is of the utmost importance that in all our common schools the laws of health should be taught, and no teacher ought to have a certificate as a teacher who could not pass a thorough examination on this branch of education.

It is but a small part of the evil that can be reached by law. You can not prevent gluttony by law, nor can you compel bathing. The children must be taught the importance of abstinence, and the necessity of cleanliness, so that they will voluntarily undertake the preservation of their health.

Physiology is a more important branch of education, than grammar or geography; it never should be omitted in the course of training.

The process of digestion ought to be taught thoroughly, and all ought to know what is digestible and what is not.

As far as it is practical to do so, the art of cooking should be taught in our schools and it ought to be regarded as a greater accomplishment for a young lady to know how to prepare a first-rate loaf of bread, than to move gracefully in the waltz, to know more about biscuits than bangs, and fritters than frizzes.

She ought to so understand and practice the laws of health, that her pure and healthy blood would paint the roses on her cheeks in fast colors, roses that would excite more admiration than the-five cent article purchased at the drug store, which has to be daily renewed. The legitimate effect of alcohol and tobacco on the stomach and brain, ought to be so impressed on the mind of every scholar in our public schools that there would be a lesser number of drunkards, and chewers and smokers, of the vile weed, in the next generation.

A host of bold reformers ought to be sent into what is called the first circles of American society, and make it *fashionable* to be *healthy*.

It seems to be entirely out of style to be vigorous and strong among the bon-ton.

To have the ticdouloureux, or to be full of malaria, and be the constant owner of a first-rate article of neuralgia, will make up, in fashion's eye, for a shortage of bank stocks or money. Indeed you can make a pretty fair specimen of uppertendom out of a little blue blood and a long list of complaints. Those who are not compeled to rush round to watering places, and medical springs, those who eat three square meals every day, those who can go to sleep without opiates, and wake up without a fearful headache, hold a very doubtful position in the fashionable world. They will have to have an abundance of wealth, some distinguished relations, and plenty of grit and independence to maintain their standing. All this ought to be reversed. If our social life was formed on a different basis and if it was deemed low and vulgar to parade a long list of ills, most of which are imaginary, and it was regarded as the very hight of fashion to be well, and hearty, we would soon see an improvement in the health of the upper circles.

It seems to me that an aristocracy based on disease, high-toned invalidism, is not just the thing to establish the fact that this is a progressive age. To accomplish this reform it will be required to make a radical change in the customs of social life.

The intemperance and gluttony of the midnight dinner, will have to be abolished, and the feast of reason and the flow of soul, will have to be substituted. It is the *cham*paign of the night before that lays the foundation for the *real* pain the next day, if you will tolerate so old and bad a pun as that.

It is a serious obstacle to social life as well as detrimental to health that an expensive banquet, with a silver plate accompaniment, is necessary and essential to social existence. All who can not afford it, and who think too much of their health to sacrifice it in this way, abandon society, and live within themselves rather than pay such a high price for the little return they get from the fashionable world.

Thus it seems that our health is sacrificed on the altar of custom and fashion, as well as to gratify our gluttony and intemperance. And while it may not be said that we are a sickly-looking people, yet it may be asserted that a real healthy countenance is rarely seen among those in mature life, and when seen attracts attention and remark.

Health ought to be the rule and disease the exception, and so it might be if we would be so impressed with the importance of the subject as to give the matter our constant and earnest attention.

In this beautiful land of ours, with our clear, blue sky, our delightful climate, our grand and lofty mountains and lovely valleys, our streams of pure spring water gushing from our hills, we have more doctors in proportion to the population than any other nation on the earth; and notwithstanding all these and many other natural advantages to preserve our health, we manage to have aches and pains and sickness enough to furnish them all some sort of subsistence. If the streets and alleys of our towns and cities were kept clean, and tile ditches were placed all through our low lands; if we would regulate our diet, quit the use of tobacco, beer and whisky, and bathe regularly and persistently, it would take the practice of a whole county to furnish a decent support to *one* doctor, instead of *forty* or *fifty* subsisting off of our misery.

In some countries disease results from the overcrowded population, low wages and high price for food and consequent starvation. No such reasons exist in this land of ours. In this regard we are the most favored people in the world. There is plenty of room and an abundance of food, and that of the best quality, and the industrious can command such compensation for their work as will bring plenty into every home. We ought to be the healthiest and most vigorous people on the face of the earth, yet we are not. We are not as strong as we seem to be. That fact was disclosed during our late war. When the drafts were ordered, many an apparently able-bodied man, who had carefully concealed the fact that he was diseased, and succeeded so well that nobody suspected that there was anything wrong with his health, under the searching examination of the army surgeon was compelled to surrender the secret, and was thus prevented from taking part in the glory of the war, and had to beat an ignominious retreat toward home. And the healthy men we sent to the service were of such delicate constitutions that many of them contracted disease in the service, and are now on our pension rolls.

I can but think it was a bad stroke of policy for Congress to order the publication of the long list of our pensioners, for if these lists fall into the hands of other nations, it is to be feared that they will conclude that we are so weak and effeminate a people that they will all want to pick a quarrel with us, under the mistaken idea that they can whip us.

Disease affects us religiously as well as socially. I have known those who claimed to hate the world, and to live far above all its pomp and vanities, and who had persuaded themselves that it was the legitimate result of their deep religious convictions, when, in truth and in fact, they could not make a distinction between a quickened conscience and a torpid liver.

Want of physical health not only impairs our spiritual vigor, but it puts us out of harmony with ourselves and every body else. It begets a spirit of worry and engages mankind in the senseless combat with the inevitable. This too often becomes the fixed habit of our lives even after the cause is removed. This shortens life. It reinforces disease. If the truth was written on the tombstones they would tell the tale of the vast numbers who find a premature grave in their foolish attempt to control what was entirely out of their jurisdiction, and then worrying themselves to death because of their failure.

I am not certain but that I am traveling out of the bounds and purpose of this convention. If I am doing so, I will venture the remark, in self-defense, that a community of grumblers and complainers are in the very worst possible sanitary condition, and are the most proper subjects for a Board of Health or a hygiene convention.

What I may say is not to be regarded in the nature of a presidential message, and therefore I feel warranted in taking some latitude, and if I do wander beyond the lines the convention will have too much sense to follow me. I wish to congratulate our health officer, Dr. French, on the intellectual feast he has prepared for us as disclosed by the programme for the day and the evening. He has secured for our instruction and entertainment able and experienced men, and the subjects they have selected are so practical that I am sure, in their consideration, they will present them so clearly that those of us who do not claim to be professional and scientific, will be able to comprehend them and will profit largely by hearing them.

It seems to me it is a shame and a disgrace that the American people, so intelligent on so many subjects, should be so ignorant in regard to the subject we have met to consider. I trust this meeting will be the beginning of many to come after it, and that it may be the means of creating a spirit of inquiry and investigation, so that we may all know better how to take care of our health and our life.

I know you will all join most heartily in the earnest welcome Dr. French has extended to these distinguished gentlemen, who are here as our teachers and guides. The greatest science of all is to know how to live. The true test of progress is not that of our inventions for rapid locomotion or the quick transmission of our thoughts to those at a great distance, but is rather the processes by which we are able to present the highest type of real manhood.

Man is the noblest work of God. From the human brain have come the wonderful conceptions, revealing some hitherto hidden law of the universe of God Man ought to know, first of all, the laws that will bring him up to the highest point of perfection, physically and mentally. Let not the locomotive, the telegraph, the telephone, the electric light, the cloud-capped towers and the gorgeous palaces tell of his genius and his power, and he at the same time be a dwarf and an invalid. Let him be as God intended in the beauty and prefection of his being, the crowning glory of all.

MILK SICKNESS.*

BY JOSEPH SPALDING, M. D.

Sanitary knowledge is more difficult to attain than is the knowledge of any of the known sciences. No work of art is so important to man in comparison. It is much more important that we should know how to preserve our health than to solve the most difficult problems in geometry, or the most puzzling lessons in Greek, Latin or French.' A man's happiness depends upon his health. So in the subject which I present to you to-day, we are groping our way, while the mysterious finger of scientific facts appears to be pointed at us, at our unsuccessful search. The scientist looks upon this boundless field of research and feels that he is in a paradise for the pursuit of the great and difficult work. A few points, however, we have been compelled to know by nature in her great work of life and death.

The subject which we consider for a few moments is one of much interest, one which should employ the mind of the scientist for time to come, until the true germs are laid upon the microscopists' table as the undisputed cause. We have seen the effects of its poison in numerous instances; in many it has sent its victim to his "long home." The subject which I present is what is termed Milk Sickness, deriving its name from the long known fact that the disease in man was caused by the use of milk, butter or the flesh of diseased cattle. It has received the name of slows, on account of the general indisposition produced; trembler, for the reason that active exertion in both man and beast will cause trembling; puking fever, from the extreme nausea and excessive vomiting. It is confined to localities; in some sections these points of infection cover miles of territory, in others very narrow limits are asserted. It has had its victims in the States of Ohio, Indiana, Illinois, Kentucky, Tennessee and North Carolina, as far as I know only in sections of exceedingly fertile soil.

This disease has been known but a few years to science. In 1821, Dr. Lee, of Tennessee, and Dr. Wright, of Kentucky, brought to the notice of the profession many points of much note. In 1855, Dr. Byford, of Nashville, brought out elaborate papers concerning it. So that, in the year 1858, Dr. George B. Wood classified it in his great work on theory and practice, thereby bringing the disease to the general notice of medical men.

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*A paper read at a Sanitary Convention at Purdue University, Tuesday, Nov. 18, 1884.

As a disease, it is one of the most loathsome, distressing afflictions known to science to which we are liable. Although the cause may be confined to localities, the disease is transmitted far from the points of infection by the use of milk, butter and beef.

To remove the infection the soil must be brought into thorough cultivation. It is also quite as important to remove surplus water by a complete system of drainage. Also to remove the undergrowth from the heavy timber lands, so that the sunshine can thoroughly penetrate, warm and dry the soil, thereby destroying this infectious substance, whether it be plant, fungoid, or bacteria. In no instance have I been led to believe that any animal has received the poison while pasturing upon fields where the plow has once thoroughly underturned the surface. In every instance, so far as I know, cattle have become infected while running at large in the unfenced timber lands.

About one mile west of the University there is a beautiful grove. Several years ago quite a herd of cattle perished on these grounds. It was then covered with a thick undergrowth, and was almost a marsh. Since then a ditch has been cut, thoroughly draining this ground; also the undergrowth has been removed, so that now it is used as a pasture during the entire season, and no sickness is experienced.

The timber lands, beginning at the northwest of the University grounds, and for a width of about four miles extending southwesterly an unknown distance, have been very infectious; the victims in an early day were very numerous. They have become less as the timber has been removed, so that in the last eighteen years I have seen but fifteen well marked cases within a radius of one mile of this center of infection, and I may say that the great majority of these cases occurred the first four years of this period.

What is this poison? How is it produced? This unknown cause of disease and suffering in the lower animals, as well as man, is one of the mysteries that sanitary science must unfold. A great work has already been accomplished. Noble men have put the best of their life-work in the effort of opening up this great problem. To my mind the infectious element exists, in or upon plant life, the growth of which is confined to rich, moist soils: a plant only suited to shaded positions; distasteful to animals, only eaten by them when there is a scarcity of vegetable food, containing a fermentive poison; slow or rapid in its effects, which even a lapse of years will not remove; a poison whose direct effect is upon the glandular system and capable of entirely arresting glandular action; always entering the human economy after having passed the digestive organs of the herbivora; often passing in the secreted milk of the mother, proving fatal to her offspring while she escapes with but little indisposition; always received during the period of grazing—more often in dry than wet seasons.

Period of incubation: Time varied; longer when received from the plant than from milk or beef, in which latter case the effects may be almost instantaneous; often a month of lassitude will result before a true development.

Symptoms: Mild cases—languor, nausea, slow pulse, dry tongue, loss of appetite. Severe—increased nausea, bad breath, dimness of vision, muscular soreness, loss of appetite, no fever, the surface cold and waxy. More severe—constant distressing vomiting of small quantities of mucus, almost black; a peculiar pungent order of the breath and excretions. You will not object to having ample ventilation, at least while you are in the room. They are costive; pulse slower than usual; temperature one to three degrees below normal; surface cool and dry; eyes sunken; the salivary glands cease to act; the mouth and throat are dry; the inspired and expired air sounds as if it were passing in tubes of dried and wrinkled parchment; the gastric mucus becomes less and less, until none at all is secreted; the liver at first secretes bile, gradually lessening, until none at all is produced; all glandular action is arrested, even the mucus that should constantly bathe the mucus surface of the air passages is wanting; on auscultations you find the crackling rales similar to those found in the first stage of acute pneumonia; the tongue is dry, the teeth become covered with sordes, the eyes look green and glassy, the vital powers of the system give way, and Death, the great conquerer, takes his victim.

One noticeable feature, one invariably present, is the peculiar odor of the breath and excretions. You will notice this in every marked case; it permeates every part of the room, often the entire dwelling, thereby enabling you to make your diagnosis before you see your patient. This feature is as distinct from any other known odor in any other disease, as the aroma of the polecat is distinct from that of any other known animal.

As to anatomical lesions, I can say nothing from observation. The season most favorable for its occurence: I have treated in the month of April, two cases; May, four; June, five; July, six; August, four; September, four; October, one; November, nine; December, January, February and March, none. My fatal cases were in May, one; August, two; November, four. Death has usually taken place within forty-eight hours after the development of the first symptoms. In fatal cases, as a rule, glandular action is almost wholly or entirely suspended, showing direct action upon the great mass of nerve substance.

In brief, to illustrate, I will refer to three cases occurring in the family of Zion Smith. November 7th, 1868, I was called to attend professionally a daughter aged ten years; she was vomiting a ropy mucus, was much prostrated, no sign of fever, the pulse was below normal, surface cool, the breath quite characteristic. I diagnosed to the father milk sickness; he persisted that it could not be that; that they had no way of getting the sickness, (nevertheless their cow was pastured in the uncleared, unfenced, timber lands) he persisted that he was right. I told him that we would probably find out the correctness of my belief. This case readily yielded to vigorous treatment. About three days later he was taken with symptoms similar to what his daughter had, only much more severe, so much so that he was ready to conform to my belief in regard to the true nature of the sickness. He had extreme nausea, cold, clammy surface, his breath perfumed the entire house. I had much trouble to produce cathartic effects; it took large quantities of spirits to stimulate him, but with liberal amounts of fire-water well soaked in, I was awarded the satisfaction of seeing him recover in a few days. About the sixth day from the time of the young lady's sickness, he one evening called my attention to his wife, stating that Mrs. S. is not feeling well, I fear that she is about to be sick. On examination she was pale, surface of body much relaxed, arterial circulation imperfect, tongue red, the eye was dim. She had been costive for two days; at this time she had noticed nausea; soon vomiting begun, but very little substance was vomited, showing but little action of the secretory glands I ordered warm baths, liberal doses of epsom salts and senna extracts, also for them to give her all the whisky that she would drink. I called early the next morning; found that she had retained but little, if any, of the medicine; no stimulant effect or cathartic action had been produced; the breathing was rapid, the sound of the breath dry and rasping, it appeared as if the larynx was dried. I had her bathed in whisky, injected it, gave cathartics both by stomach and rectum, adding croton oil, with a hope that some action might be produced; all efforts were of no avail; she died in about forty hours from the time that the first symptoms developed.

REMARKS.

In these three cases the poison was without doubt received by each at the same time, as the use of milk was discontinued after the child was taken sick. By this we may infer that the longer the poison is retained the more severe we may expect the effects to be. Also, fatal results occur more often in late fall. Usually several in the same family are affected at once. Further, the sooner after partaking of the poison that the effects are noticed, the more favorable the prognosis under favorable treatment. It is equally fatal to infant or adult age; debility or an exhausted condition is unfavorable. The first action of the poison is to produce sickness, followed by vomiting; the later effects is paralysis of the secretory system. A mother's milk will cease to flow, the mouth will become dry, the throat, larynx and bronchial tubes are dry; gastric, mucuous, bile, urine, are not secreted —if at all, only sparingly.

In conclusion, we do not know the true cause. We do know where we get the disease. We believe we know how to escape it. Now, with the laboratories of Purdue under the management of trained and skillful men, with the assistance of many educated men in an organized society for the purpose of study of the laws of prevention of disease, we look with confidence to the time, not far distant, that we will have in our grasp a full solution of this problem, when this poison will be discovered, when man can thoroughly eradicate from his fertile farms a vile destroyer of our happiness.

HOW TO TEST THE PURITY OF ATMOSPHERE IN HOUSES.

BY ROBT. B. WARDER, LAFAYETTE, INDIANA,
Professor of Chemistry in Purdue University.

[The following paper includes the substance of those presented by the author before the Sanitary Conventions held at Anderson, April 24, and at Purdue University, Nov. 18, 1884.]

We may first ask, what is pure atmosphere?

An old proverb says: "You can not have your pie, and eat it too." So it is with fresh air in a building. Open the windows, and take in as much of the spring morning as the walls will contain, and the first breath of a single occupant will pour out carbonic acid, besides many kinds of organic impurity. If a current of air is constantly passing through the house by the best system of ventilation, the air discharged and the air of the room will be less pure than that which enters. The outside air may not be absolutely pure; that in an occupied room must be still further contaminated. What, then, can we adopt as a standard of purity? This depends, to a great extent, upon the price we are willing to pay for fresh air. It is needless to say that pure air is a free gift of nature. We may enjoy the ozone on the mountains, but it costs something to get there. If we but open our windows, the fresh air will enter; but it costs something to warm the air and render it suitable for in-door use; it costs something to construct flues which shall supply large amounts of fresh air without causing uncomfortable or injurious drafts in some part of the house; the greater the supply, the purer the air, and the greater the cost—especially in cold weather. And so we find a great vartety of standards.

CARBONIC ACID, AN INDEX OF IMPURITY.

The carbonic acid in the expired air is far less harmful than the decomposing organic matter; but the carbonic acid admits of quantitative extimation with comparative ease, while the organic contamination presents such difficulties that even its nature is yet but imperfectly understood. An atmosphere may become fatal when contaminated with carbonic acid alone, to the extent of five or ten per cent.; while two per cent. may produce severe headache. But if the carbonic acid has been increased, by respiration, to only two-tenths of one per cent., headache and vertigo often result. Here the organic matter from the lungs and from the surface of the body is the chief agent of discomfort.

In the sanitary examination of drinking water, less than one part of nitrogenous organic matter in a million, may be ample ground for condemning it; how then can the almost imperceptible contaminations, floating upon the atmosphere, be collected and weighed? This can only be done indirectly; and while the carbonic acid is comparatively harmless, it affords a very useful index to the wholesomeness of the air of inhabited rooms. What we call pure fresh air contains from two to five parts of carbonic acid in ten thousand. The mean is about four parts in ten thousand, or four hundredths of one per cent.; this is often increased, in rooms, to ten or twenty parts in ten thousand.

STANDARD OF PURITY, OR LIMIT OF CARBONIC ACID.

We must now fix our attention, not on carbonic acid itself, as the harmful agent, but rather on the difference between the carbonic acid of the room and that of the outside air, as this increase will be an approximate guide to the organic filth, which is the real poison. Dr. de Charmont has shown* that with an increase from the breath of about two parts of carbonic acid, to ten thousand, the air was practically fresh, with no smell of orgnnic matter to distinguish it from the outer air; with an increase of four parts in ten thousand, the air was rather close, organic matter becoming perceptible; with six or seven parts of expired carbonic acid, the organic matter was quite disagreeable; and when this had risen to nine parts, the air was so close, the organic matter so offensive and oppressive, that the senses could scarcely observe any further difference with still greater contamination.

Since fresh air contains about four parts carbonic acid in ten thousand, we may add this amount, and estimate that the total quantity in these four groups of experiments averaged six, eight, nearly eleven, and thirteen parts respectively. Pure carbonic acid is odorless, and a much greater amount would be required to produce unpleasant effects. In estimating carbonic acid as a test for purity, therefore, we must distinguish between carbonic acid from the breath and that derived from the external air or from the burning of gas and oils. In round numbers, we may consider that the carbonic acid of respiration may reach two parts in ten thousand with no discomfort, and four parts without actual danger to health (except for persons predisposed to headache) while six parts can not be exceeded without a probability of more or less injury. The United States Commissioner of Education recommends that three parts be regarded as the normal limit for school houses.* The carbonic acid of respiration often reaches eight or ten parts in ten thousand, in the close atmosphere of badly ventilated houses, while at least twenty-five parts have been observed in American school rooms.

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*Proceedings Royal Society, 1875 and 1876, as quoted in Parke's Practical Hygiene, p. 143.

ESTIMATION OF CARBONIC ACID.

By breathing into lime-water, calcium carbonate is precipitated. This is one of the most popular experiments to demonstrate the carbonic acid of the breath. If the calcium carbonate so formed were collected on a filter and weighed, the amount of carbonic acid absorbed could calculated from the weight so found. There are many practical difficulties in such a process, and modifications have been introduced by various chemists, which will be considered in order.

PETTENKOFER'S METHOD.†

This chemist used an aqueous solution of baryta (instead of lime) of exact strength. A measured quantity of the baryta water is well shaken in a large glass vessel filled with the air to be tested. A part of the baryta is precipitated by the carbonic acid, and the excess is determined by standard solution of oxalic acid; thus the difference between the baryta in solution, before and after shaking with the air, indicates the quantity of carbonic acid present.

This is usually regarded as the standard method, but about ten liters (or quarts) of air are collected and used for each determination, and a more convenient process for approximate determination is desirable.

WOLPERT'S AIR-TESTER.‡

This ingenious little instrument is based upon the assumption that a definite quantity of carbonic acid is required to render a given area of lime-water opaque. A glass cylinder or test tube is provided having white enamel on the bottom, upon which the number 1882 (the date of the invention) is distinctly marked in black figures. A small quantity of lime-water is poured in (about one inch in depth), and the air to be tested is blown in from a small bellows, consisting of a hollow rubber ball attached to a glass tube. The size of this ball is so related to the cross section of the test tube that if the atmosphere contains two per cent. of carbonic acid, a single discharge of air will precipitate enough calcium carbonate to hide the date on the bottom of the test tube. If the atmosphere contains less carbonic acid than two per cent., the bellows must be filled and discharged a number of times, and the inventor furnishes a table by which to determine the amount of carbonic acid present from the number of times the bellows must be discharged before the figures disappear. In default of the table, the following simple rule may be used: *Divide* 200 *by the number of times the ball is filled; the quotient expresses the volume of carbonic acid in* 10,000 *volumes of air.*

A free translation of the principal directions for use is here inserted:

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*Circular of questions in regard to school hygiene, April 15, 1884.

†Journal Chem. Soc. (British), **10**, 292.

‡Described in Centralblatt für algem. Gesundheitspflege, **2**, (1882).

Fill the glass cylinder about to the mark with saturated, perfectly clean lime-water, and stand it in its support. Then take the rubber ball, hold the front part between the forefinger and middle finger, in any direction, and press the broad part once with the thumb, to empty the ball and fill it with the air of the room. Place the attached tube in the cylinder, close to the bottom, and press the air from the ball, with moderate speed, into the lime-water, so that the bubbles rise nearly to the top, but do not overflow. Then lift the ball, still pressed, so far that the outlet of the tube is near the middle of the cylinder, release the pressure from the ball, restore it and press the air out again. Repeat this until the lime-water becomes so turbid that the mark 1882, on the bottom of the cylinder, when viewed from above becomes indistinct, and disappears on shaking.

With very bad air, it is necessary to withdraw the tube and observe the mark, after filling two or three times; with good air, only after filling twenty or thirty times.

After each observation the cylinder must be washed out by shaking, with pure water, and must be wiped dry. Should a white deposit of calcium carbonate be formed in time, this is remedied with a little vinegar, after which the article must be thoroughly washed with pure water and dried. From the number of times the ball is filled with air (to reach the required turbidity), the corresponding proportion of carbonic acid is seen from the accompanying table. If the required turbidity is reached by filling less than ten times, the air is decidedly too impure to be breathed without injury; if the ball must be filled ten to twenty times, it is allowable to remain a short time in such air; if more than twenty times, the air is good for ordinary conditions; but in the sick chamber the air should be so pure that the complete turbidity of the lime-water does not appear until the ball is filled thirty times; in severe sickness, forty or fifty times.

This seems to be the first successful attempt to provide a simple method of determining carbonic acid, by which non-professional persons may make such tests. The instrument promises to give fairly approximate results. It must be used with care and intelligence. The observer must exercise good judgment (as the figures gradually become obscured) in order to estimate correctly the point at which the required turbidity is reached. The character or intensity of light in the room may also influence the result, and care must be taken not to vitiate the result by the operator's own breath.

Moreover, the table seems to be based upon the assumption that all the carbonic acid is absorbed, or at least that some definite proportional part of the carbonic acid is absorbed, whether it is present in larger or smaller quantity. Complete absorption, under the conditions of use, is impossible. The proportion absorbed may vary somewhat with the speed of discharge, the temperature, and other conditions.

TITRATION WITH PHENOL PHTHALEIN.

This substance gives a deep red color, when added to lime water or other alkaline liquid, and the color disappears when neutralized by carbonic acid. Professor M. Ballo, in Buda Pesth, R. Blochmann, in Königsberg, and the writer, in Purdue University, were engaged almost simultaneously in the attempt to apply this principle to the testing of the atmosphere.

Ballo* colored diluted lime water with phenol phthalein and added this from a burette, in successive portions, to a flask of the air to be tested. Absorption of the carbonic acid was found to take place so slowly that he substituted a mixture of potassium or sodium hydrate with barium chloride. With this reagent, the titration could be made in ten or fifteen minutes, as the alkaline carbonate first formed was at once decomposed by the barium salt. The air was collected by filling a measured flask with water and emptying it in the atmosphere to be tested. Ballo reports seven determinations with phenol phthalein, in which the results are compared with those obtained by Pettenkofers' method. In some cases his results are quite close; in others they are about one-fifth too low.

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* Berichte d. deutsch. chem. Gesel., **17**, 1097 (May, 1884).

Blochmann* at first attempted titration by adding lime water to the atmosphere, as did the Hungarian chemist. Not satisfied with his success by this method, he preferred to begin with a definite quantity of lime water, and measure the volume of air required to neutralize it, as Wolpert measures the quantity of air required to produce a certain degree of turbidity.

The writer of this paper presented a similar method before the Sanitary Convention held at Anderson, Indiana, April 24.† Direct titration with diluted lime water containing phenol phthalein, proved unsatisfactory (as in the experiments of both Ballo and Blochmann) until a sufficient quantity of pure water was also used to serve as an agitator. To test the purity of the air in a room, two flasks are filled with air by means of a bellows, one with air whose character was to be determined, and the other with normal air from outside. Into both flasks the same quantity of water is measured from a pipette, to agitate the air. Water that has been recently boiled may be preferred for this purpose, as this will contain a less proportion of carbonic acid; but since the experiment is deferential, to determine the carbonic acid of respiration, this is of little importance. The analyst's curiosity will naturally lead him to titrate the water, in either case. Twenty-five to fifty c.c. are enough for a flask holding one liter. Each flask is closed with a rubber stopper, one hole being opened to maintain atmospheric pressure during the addition of the lime water. To each flask the colored lime water was added from a burette in small portions, through a rubber connecter long enough to admit of vigorous shaking, until the carbonic acid has been absorbed, and a barely perceptable pink color remains. The difference in the amounts required shows how much more carbonic acid is in the air from the room than from outside; it very closely represents the carbonic acid of respiration.

The lime-water used in the experiments just described was carefully standardized, both with dilute sulphuric acid and with pure carbonic acid (generated from marble by strong sulphuric acid), largely diluted with pure air. It was convenient to make it of such strength that 4 c.c. were required to neutralize 1 c.c. of carbonic acid measured under ordinary conditions of temperature and pressure; but a comparison of the two results showed that a certain part of the carbonic acid present failed to unite with the lime, even when shaken for fifteen minutes. The reason for this is discussed below. Of course, the available strength as determined by dilute carbonic acid was the valuation required for the work in hand.

Mr. Owen, of New York, has also devised an apparatus‡ for testing the carbonic acid of the atmosphere by means of baryta water and phenol phthalein, a series of bulbs being employed to effect more complete action between the solution and the gas. We may expect reports on the use of this instrument from the Board of Health of Paterson, N. J.

THE "ACTION OF MASS" IN ESTIMATIONS OF THE CARBONIC ACID OF THE AIR.

It is well known that, under favorable conditions, two substances mixed in concentrated form will react upon each other more energetically or rapidly than when largely diluted. In fact, numerous investigations‖ lead to the general conclusion that, *under like conditions, the speed of a reaction between two substances is proportional to the product of the quantities of each that are present in a given space.* Thus, in the estimations with phenol phthalein, as described, the alkali and the carbonic acid are both highly diluted when first mixed, and *each* of the constituents is removed from the field of action to such an extent that it is quite difficult to complete the reaction, especially as we have to deal with both a liquid and a gas. With Pettenkoffer's method, on the other hand, a certain excess of alkali is added at the outset, so that the absorption should take place the more rapidly at first, and far more rapidly toward the close of the operation than would be the case if only the equivalent amount of alkali were added; yet about half an hour is allowed, with frequent shaking to insure correct results. With Wolpert's apparatus the lime is present in very great excess, but the bubbles are forced through so rapidly that complete contact is impossible, and the operator can only hope that the same proportion of carbonic acid escapes absorption in all cases. In each of the methods of using phenol phthalein, as described above, an attempt was made to neutralize the alkali entirely with carbonic acid. A partial neutralization with the total carbonic acid, to be completed with standard chlorhydric acid (or any convenient acid that will not precipitate coloring matter with the lime), promises much better results. The writer has not yet found opportunity to subject these views to the test of experiment.

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* Berichte d. deutsch. chem. Gesel., 17, 1017 (May, 1884). The author promises fuller details and analytical results in Fres. Zeitsch. anal Chem., 1884, 3d part, but I have had no opportunity to consult this paper.

† Proceedings of the Convention, pages 40-43.

‡ *Sanitary Engineer* for April 3, 1884.

‖ References to many of these investigations will be found in the writer's paper on "Suggestions for the Compatation of Speed of Chemical Reactions," Proceedings Am. Assoc. Adv. Science, 32, 156, (1883).

GENERAL CONCLUSIONS.

I. Pettenkoffer's method must still be regarded as the most reliable for accurate work, but it is probable that this may be greatly improved or facilitated by testing the following modifications and conditions:

1. The use of phenol phthalein as indicator.
2. The use of a more active alkali, perhaps potassium hydrate in presence of calcium chloride.
3. Thorough agitation of the whole volume of air with a sufficient volume of alkaline fluid.
4. The use of a smaller volume of air, with dilute volunetric reagents, and a close observation of the color changes.

II. If we leave Owen's apparatus out of account, (and I have not yet had opportunity to examine it), Wolpert's method is likely to prove the most valuable for practical purposes in the hands of non-professional observers, such as may be engaged in the sanitary survey of school-houses. His apparatus is the most portable, and gives approximate results in the shortest time.

III. In applying any method to the sanitary examination of air in schoolrooms, public halls, or other places, various precautions are required, such as would readily suggest themselves to a chemist. Care and precision are indispensable in order to obtain trustworthy results. Each observer must very carefully test the method and his own power of distinguishing nice shades of color. Observations should not only be duplicated, but repeated over and over, if necessary, until the results are found to agree pretty closely.

It is only by careful practice that the chemist can learn how much dependence to place on his results. If others have occasion to make chemical determinations, they must be willing to undergo the needful training with patience.

SOME OF THE DEFECTS OF OUR PRESENT SCHOOL SYSTEM.*

BY J. R. WEIST, A. M., M. D., RICHMOND, IND.

Ladies and Gentlemen:

As citizens of Indiana, we are justly proud of the wonderful growth of our State. When we remember that the "Territory of Indiana" was organized in 1800, having a white population of less than 5,000; that the country was at that time a wilderness; and that in the short period of eighty-four years, our population has increased to 2,000,000; that all our farms have been made; our towns and cities built; roads, canals, 6,000 miles of railroads, telegraphs and telephones constructed; and the assessed value of our real and personal property increased from a few thousand dollars to $800,000,000; that the annual value of our farm productions now reaches $155,000,000, and that of our manufacturing industries $170,000,000, we realize how marvelous has been the growth of our State in material prosperity, and how the power of human industry, when called into action by the genius of Freedom, and guided by intelligence, more than rivals that of the gods of Greek mythology.

When our thoughts turn in this direction, we are in the habit of persuading ourselves that the physical, moral and intellectual condition of our people exhibits a corresponding rate of progress. In support of our conclusion we refer to the low mortality rate of the State, and to the perfect physical development of many of our men and women; to our 4,500 churches and to the many other organizations devised for the advancement of the moral status of our citizens; to our 10,000 school houses in which 13,000 teachers give instruction to 500,000 children, and feel that we have established its correctness. We too often forget there is another side to the picture, one full of deep shadows.

The census of 1880 gives 4,725 as the number of Idiots in the State, 3,530 as the number of Insane, and 3,965 as the number of Paupers, 2,098 as the number of Prisoners, 2,238 as the number of Blind, 1,764 as the number of Deaf Mutes, making a total of 18,320, belonging to the defective, dependent and criminal classes. 70,008 of her citizens of ten years of age and upwards, were unable to read, and 110,761 unable to write.

For reasons well know to sanitarians, it is safe to say that of the 15,971 deaths reported as having occurred in the State during the same year, at least 5,000 were caused by preventable diseases, and that for each of these deaths there were ten cases of serious disease, or 50,000 that might have been prevented by the application of hygienic laws. It is held by those well informed on the subject, that unnecessary disease reduces the productive efficiency of the average life fully 30 per cent. Placing the loss at one-tenth of this, it will be found that the annual loss to the people of the State equals $10,000,000. If to this immense sum we add that annually required for the care of the defective, dependent and criminal classes, we will have a result astonishing to those who have not as yet studied the subject of the losses caused by preventable disease, pauperism and crime.

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* An address delivered before a Sanitary Convention at Purdue University.

These questions are receiving the most serious consideration among all civilized peoples, and notably by the citizens of our own country. Those who think most and best are well satisfied that the future of the United States depends upon the manner in which our legislators deal with them. That the makers of our laws may act wisely, it is necessary that the means for the preservation of life and the prevention of crime, for the development of a perfect type of manhood and womanhood, be understood by the people.

It is for this reason conventions like the present one are needed. Heretofore nearly all the work done for effecting sanitary reform has been by the medical profession, but now it must be taken up and finished by the people. As yet the work done in this direction by medical men has not been duly appreciated. Perhaps it would be better to say that the real spirit of philanthropy leading to the work has not been generally well understood. Personal ends have been supposed too often, to furnish the motives for the actions of medical men seeking to lessen or abolish the evils we are considering. A little reflection would lead to more correct opinions on the subject. The income of the average physician is derived almost solely from the fees received from his patrons, and he fully understands that any lesson for the preservation of health learned by his patrons diminishes his income; yet alone or in connection with his brethren he continues to teach these lessons, thereby affording an example it might be well for men in other professions to follow. Have you ever heard of a convention of lawyers for the purpose of teaching the people how to make less litigation necessary? Or of manufacturers to lessen the demand for their wares? Or of farmers to decrease the consumption of farm products? This reference to the unselfish work of medical men engaged in sanitary reform appears to me to be necessary for a right understanding of the subject by the people. These general observations are made for the reason that the questions involved in sanitary reform are of such magnitude that only by presenting them to the people on every proper occasion, and from all possible points of view, can they be grasped and properly comprehended.

Understanding the purpose of this convention to be to inform the profession and the people as to the nature of the work undertaken by the State Board of Health, and the necessity existing for it, and thus enlist the interest and aid of those most interested, I have selected for brief consideration the question of "Some of the Defects of our Present School System," it being one in which the people of every section of the State are alike interested, and because the University in which we are assembled illustrates how successfully the remedy I shall propose may be applied.

Amid the thousand perplexities of the school-room it is to be feared the teacher often loses sight of his highest work: the development of the reason of the child, and storing his memory with facts in "orderly array," helping him to acquire all that is usually comprehended by the term "*Education*," form a large part of the teachers' work, but do not include that which is of the greatest importance.

The properties of numbers, the laws of language, the physical conformation of the world, are important; but the laws of life and the relation of the individual to his environment are much more important. A true education must comprehend more than a knowledge of their real substance and of their relations.

The first step towards the attainment of the highest position by our people must be in the direction of improving their physical, as well as their mental and moral condition; our present system of education does not do this. And in consequence, pauperism, crime, insanity, and a general degeneration of the masses is in progress that must continue until some change is made.

Education being largely in the hands of the teacher, a heavy responsibility rests upon him.

The first purpose of our schools should be the development of healthy bodies.

The truth of Juvenal's maxim, "*Mens sana in corpore sana*," is reaffirmed by modern science. I admit that the force now ruling the world takes the form of thought, but this does not come from some intangible thing having a nature different from the body; it is the product of the cells of the gray matter of the brain, a form of force liberated from the matter taken into the body as food, and its quality depends largely upon the physical conditions of the brain and of the body generally.

Teachers are beginning to understand how faulty methods in the school room may injure the eyesight, prepare the way for consumption, directly cause a variety of diseases of the nervous system, some of them ending in insanity, and a general feebleness of the body; but few realize how far reaching these evils are; that they may not only influence the whole life of the individual, but extend to those who come after him. They sometimes forget, if they have learned the lesson, that every peculiarity of the skin, muscles, bones and nerves is hereditary, and therefore the habits and the training of the school room are moulding the physical character of the people, and through it their mental and moral character.

Notwithstanding our high civilization, consumption, idiocy and insanity are increasing, and the average duration of life growing less—all signs of physical degeneration. The startling increase of pauperism and crime is evidence in the same direction. The amount of evidence of this kind furnished by our own State is hinted at in the few statistics given in the beginning of this paper, but each tax payer will appreciate it better by calculating how large a part of the money he pays goes to the support of the defective, dependent and criminal classes. I do not pretend to claim that all these evils grow out of defects in the system of education employed in our schools, or that any improved plan can eradicate them, I only claim that our schools are moulding the character of our people by habit and training, and that they only can build up a desirable hereditary national character. A system of education is not to be judged by the effect on the individual, but by the effect on the people composing the State or the Nation. The general political corruption, the frequent betrayal of the most sacred trusts, and the low moral sense seen in every community, the increase of actual crime, poverty and disease, show that our system is defective.

The imperfect physical development of the body, whence many of these evils come, often result from cultivating and developing the brain at the expense of the other organs, or of one part of the brain at the cost of another.

It is now generally understood that all the functions of the body are simply the manifestations of force denied originally from sources outside of itself, and that the amount of this available in each individual is limited; that if an undue amount of this is displayed in one organ the rest of the body suffers, and that the physical structure of an organ is changed by the amount and kind of force manifestations taking place through it; therefore I need not stop to explain how the body generally may be made to suffer—how it is made to suffer—by mental overtraining in our schools.

Mental work causes structural changes in the brain, their nature and extent depending upon its kind and quantity. Cells and fibres are the instruments of mental action, and they are as perfectly under the dominion of law as are any other parts of the body.

The muscles of the blacksmith's arm grow from use until they may equal Milo's, yet they may be so overtaxed as to become paralyzed. From disease these same muscles may decrease in size until they are as soft and weak as those of an infant. It is the same with the brain—one portion, by mental operations of a certain kind, may attain to extraordinary power, while another, for want of use, hardly responds when a demand for work is made upon it, or actual disease may be developed.

The cramming process of our schools develops only a part of the faculties, yet the brain can be perfectly developed only when they are trained alike. It is because of this defective organization of the brain, for which our system of education is largely responsible, we have so many people in whom there is a want of the power of co-ordinating the ideas and feelings, and a loss of the controlling power of the will. Such persons are incapable of sustained attention, accurate observation, and sound reasoning. They can not apprehend a question distinctly, nor fix their attention to it. They use words without attaching definite meaning to them; cherish beliefs without realizing the true value of what they affirm, and wander in an incoherent way from subjects which they attempt to discuss; believe as their fears, affections or interests prompt, and mistake prejudices or vague feelings for well founded convictions, and are never able to distinguish between their beliefs and actual knowledge

Education has not fitted these persons for personal happiness, or for the exercise of the duties of citizenship, and it is from their ranks socialists, revolutionists and the insane are recruited.

When our teachers come to recognize that pauperism and crime depend upon imperfect development and disease, they will understand that their highest work is a study of the hereditary tendencies of the child; that some of them may be corrected and others cultivated; that it is better that they make this study for the prevention of evil, than that they be in the end forced to make it for the correction of poverty and crime.

Another defect of our schools is that often the knowledge imparted is of little use in the struggle for existence that must come later in life. "Much is taught that ought not to be taught, and much is not taught that ought to be taught." Children should be educated by drawing out and developing them, and putting them in the way of developing themselves through life by bringing them into contact with the means and conditions adapted to their natural dispositions and talents. This is not the plan followed in our schools, which have been so systemized and graded as to deal with children as though they were moulded, physically and mentally, after the same pattern. Our system is like the famous bed of Procrustes – those too long must be cut down, and those too short must be stretched up.

We overestimate, in our schemes of education, the value of the ideas of other men which, coming to us without thought or observation, are but half understood, adding nothing to our real strength. Knowledge, like wealth, looks tempting; but only when obtained by long and hard labor do they develop the power of employing them wisely. Our thirst for knowledge is as morbid as our greed for gain. Wealth and knowledge are both but means of which the happiness of ourselves and others is the end. Knowledge, however, instead of developing, by being assimilated into character, or incorporated into institutions, is left by us unapplied. Hence, ideas are so far ahead of the actual condition of the people, that the application of the one to the other is almost out of the question. Hardly any thing but violent revolution can bridge the chasm separating the actual and the ideal.

Children during their school life should be started on the way they are to travel through life. They should be made to feel, think, live and act as they are to do through life. Instead of this, they are made to feel, think and act as if their lives were to be passed in the school-room and not in the world. It may be that our schools impart to our children the knowledge that will make them ladies and gentlemen to shine in society; but would it not be better if they gave that which would make them men and women fit for useful labor in a world of toil and labor?

Wendell Philips says: "Seven out of every ten of the boys who come out of our public schools will be obliged to make their living in the world by the work of their hands. Yet hundreds leave school at fifteen or sixteen years of age wholly unable to do any thing for which any man would be willing or could afford to give them a dollar. Having been sitting at a desk so long, employed in no other work than following the literary course of one educational code, they have lost that taste for manual labor, and prefer to starve on the slim salary of a clerk or book-keeper, than to thrive on the labor of their hands. They have learned to despise a life of honorable manual toil in straining after a supposed gentility."

Does the education girls receive in our public schools render them more fit to perform the highest duties of life? Let the aspirations of the average girl answer. Is it not true that to amuse herself and other people is the great object in life, is her ideal anything higher than to be amiable, inoffensive, dress well, flirt a little and marry a genteel young man? Is there anything more stupifying than such a conception of the purposes of existence? Yet these girls are to train children and give tone to society! They who believe the burdens of maternity a disgrace, who teach young men that hard work is foolish self-torture and shrink from being seen in company with the young man whose hands are soiled and hardened by honest toil! Have our free schools about which we boast so much, properly prepared the girl for making a happy home, and developing a nobility of character in her children?

It may be justly claimed that the evils complained of can only partly depend upon the methods of education pursued in our schools. This concession makes the necessity for changing methods no less imperative. The children will soon be the parents and the leaders in society, and if a reform in our social and moral conditions is to be effected it must be through the knowledge, the training and the character given children in the school.

Knowledge is not an evil, it is power! The mechanic who does his work by scientific methods will always surpass the one who works by "rule of thumb," and the educated woman who employs her knowledge in cooking a dinner properly, for the encouragement of her husband in his work, for preserving the health of her children, and for elevating the morals of society, has a great advantage over her equally honest but ignorant sisters.

Another defect in the education of our schools is that in many cases it destroys the natural capacity for manual labor, and leads to the conclusion that a kind of disgrace attaches to it.

In a lecture recently delivered in New York, Monsignor Capel said:

"Your public schools are destroying the very life of your growth and prosperity, they produce no artisans; they produce no skilled labor; but they do produce young men who feel degraded by labor; young men who rather live by speculation than by the honest toil of their hands."

Is it not true that a large number of boys on leaving the common school are left for years a burden on their parents, listless seekers for vacant places in stores, in government offices or in the ranks of the over-crowded professions, or that they largely compose the idle class from which vice and crime recruit their strength through the always ready agency of temptation?

The Philadelphia Times in commenting on the report of the Eastern District

Penitentiary says: "What a terrible satire upon our boasted free-school system, that nine-tenths of the young criminals sent to the penitentiary, have enjoyed its advantages, but three-fourths of them have never learned to do an honest stroke of work. Surely there must be something very wrong about a system which thus recruits the great army of idlers and criminals, and it is not wonderful that many thoughtful men believe, though they never dare to speak it aloud, that our public schools are an evil rather than a good."

For the boy to become skilled in manual labor the training of his muscles must be begun at an early age; his physical training must be carried on with his mental training to be successful. When this is not done he is placed at a great disadvantage if later in life he desires to learn a trade or some useful art; this is one of the reasons why he is above devoting himself to an occupation he would be perfectly willing to follow were he uneducated, and impediments have been thrown in his way by educating him.

It is a popular error to attribute a large part of crime to intemperance. This evil fills our poor houses and hospitals, but idleness resulting from wrong education fills our jails and penitentiaries. The criminal needs all his wits to execute his schemes, and he dare not cloud them by excessive indulgence in strong drink; and it would be easy to show that crime as well as pauperism and insanity, is largely the result of a faulty system of education. We can not afford to be pessimists simply, and must inquire if there is any remedy for the defects in our school system I have so briefly considered.

Lord Brougham says that "a child can and does learn more before the age of six years, than it can or does learn after that age, during its whole life, however long that may prove to be," and he might have added that the training and direction given to the physical and mental activities before this age, accomplish far more than during any other period of life, because vicious hereditary tendencies seldom show themselves until a later period. The early school training then is of the greatest importance, and it can be best given, I believe, in schools modeled after the *Kindergarten* of Frœbel, where in well ventilated, well lighted and pleasant rooms, opening upon beautiful gardens, character and individuality are developed, and where the virtues, order, steadiness, neatness, industry, wisdom and love are cultivated. Through such schools young children may be brought into contact with living nature and her grand realities, the source of all healthy sensation and perception, the fountain-head of all higher mental life. It is from his constant intercourse with living nature the self-made man obtains his vigor and success in life.

The *Kindergarten* should be succeeded by the *Industrial School*, in which the body is trained equally with the brain, in which in addition to the branches taught in our schools there is given science in its practical application, the history and description of raw materials, and the fashioning them into articles of industry, the management of tools, art training, practical agriculture, domestic and political economy and social science. If our schools should send out annually an army of well-informed mechanics and artisans, models of skill, efficiency and reliability, how much more would such graduates be worth to the State than those sent out by our high schools and colleges, and how much more would they do to avert the dangers to the people from preventable diseases, and to the stability of the State from poverty and crime?

Industrial schools are not an experiment; their institution has been followed by the most brilliant success in England, Germany, Switzerland, and our own country, and this Purdue University, in which we are assembled, is destined, I believe, more than any institution in the State to aid in solving the problems, sanitary and social science conventions are called to discuss.

These questions in relation to the right education of body and mind concern not only our own State but the entire country. We boast of our wealth, of our culture, and of all that makes a nation great. Yet those who are wise, see in the increase of insanity, poverty, crime, and the abuse made of wealth and political power, signs of our having passed the summit of our career.

Greece furnished the nations of the earth with ideals in every manner of greatness. Yet the genius of Homer, and the philosophy of Plato and Socrates did not save her. Her temples crumbled into ruins, and the glory of Athens departed forever.

Rome was mistress of the world; the choicest treasures of all known lands filled her palaces; her armies were invincible; the eloquence of her orators was unsurpassed, and her emperors were deified. Her career seemed a never ending procession of triumphs, each more splendid than the last. Yet there came a time when her eagles were broken; when her royal purple was stained with blood and trampled in the dust; when barbarians filled her streets and despoiled her temples. To-day her *via sacra* is filled with rubbish, while broken columns mark the site of her forum, and heaps of brick and stone the palaces of her Cæsars.

Thus may the splendor of our civilization fade if we heed not the lessons of the past; if we fail to learn that an education for the development of the individual, and for the saving of the nation, must be an education of the body as well as of the mind.

THE DOMESTIC CARE OF THE INSANE.*

BY W. B. FLETCHER, SUPERINTENDENT INDIANA HOSPITAL FOR INSANE.

When invited to lecture before you, I was informed I would be expected to occupy an hour; now I will not attempt more than half that. From the Sermon on the Mount to this day, I know of no good thing that could not have been said in half that time.

The subject selected by you—that of The Domestic Care of the Insane—I consider one of the greatest importance, and one that has been much neglected. The general, as well as the special care and treatment of persons afflicted with mental disease, is usually shrouded in a sort of mystery; even medical men in general practice seem awed when they encounter a mind diseased, and people in the ordinary walks of life hide from the unfortunate patient, or rid themselves of responsibility by hiding the poor wretch behind the bars of some hospital or asylum.

Whilst I would not detract anything from the specialist, I believe there should be more general and popular knowledge as to the care of the insane disseminated among those who are not medical men. If nurses were better qualified, and general practitioners bolder, we would not see the sad spectacle of childish old persons, nervous and perhaps wormy children, hysterical young women, persons suffering from the delirium of an acute fever, or a woman with peritonitis, being carted off to a retreat for lunatics. With the rapid increase of insanity, we must have some improved methods of dealing with the milder cases at least, else our greatly increased hospital capacity will be inadequate to care for all who are loosely adjudged of unsound mind.

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* A lecture delivered before the Indianapolis Training School for Nurses.

Insanity, like other diseases, requires skilled medical direction, but far more than others, demands attendants who are educated for that special purpose.

Through the prevalent error that all insane persons are dangerous, and that they can be managed as well by force, duplicity and fraud, as by kindness, truthfulness, and all that should characterize the treatment of the sane, a large number of cases become worse every day, and are finally committed to a public or private institution, who might with judicious care be restored at home.

Insanity is a word used to indicate a condition of loss of self-control through disease of the brain or some remote organ. This loss of self-control may be either constant or of occasional manifestation; it does not follow of necessity that reason should be at fault—insane persons often reason correctly, but act out of reason; moments of correct inference may be followed by most incorrect deductions, and unwarranted conclusions.

In caring for the insane it should be remembered that you are to deal with the patient's mind, as well as his body, the former more perhaps than the latter. As you have seen cool water quench the fire of the fevered tongue, or allay the throbbing, burning head, so may your looks and gestures, or your smiles direct the wild torrent of insane impulse into quiet streams of undisturbed thought.

To attempt a description of the various forms of mental disease, as tabulated in a book, would be a hopeless task, and, as I desire to touch upon the care, rather than the medical treatment, I will divide them into two classes—those who are suicidal and homicidal, and those who are not; the former can not be recommended as subjects for domestic care, whilst the latter class may be attended at home; the possibilities of domestic treatment being only limited by the financial ability of the patient or his friends. The domestic care of the insane is the same as that which is, or should be given in hospitals, and has to deal with acute and chronic forms of insanity, varying from the wildest destructive delirium to the most stupid imbecility.

The most potent factor in the care and treatment of the person of diseased mind is a well qualified attendant or nurse. Such persons, like poets, are born, not made. Nature must have endowed them with unusual qualities of mind and body; an attendant should not be so old as to be incapable of learning more, nor so young as to think that all knowledge has been acquired. In person strong and well formed, with no physical imperfection, in fact, good-looking; in manner, all gentleness, yet firm; soft of speech, sweet in song, swift in movement, and of such amiability that no provocation, however grave, may cause a reflection of unpleasant emotion to display itself on the countenance; a person of rare wit—to take advantage of every word and act of the patient, and to be able to turn it to the patient's good; a person of untiring energy, and, above all, having a real love of that special work, temperate in all things, and from all alcoholic beverages a total abstainer; temperate too in self-estimation; having neither religious, political, and above all things, no medical hobbies; the greatest curse that can come upon any patient is, to have as a nurse or attendant, one whom the gods have first made mad with the idea that he is a doctor. Finally our nurse should be as scrupulously clean in mind, body and dress as the angels are supposed to be.

I have said that the mind of the patient is the objective point of your care, and I can assure you, that, to produce the effect, you must remember that the insane mind is of most varying disposition. The master artist, who was asked by his rather idle pupil, how he mixed his colors to produce such beautiful effects, was answered rather sharply, "with brains, sir, with brains;" and never will brains serve better purpose than when well used to blend the discordant and inharmonious elements of the excited imagination of your patient. You are to remember that this mind is dependent upon the body for its support and integrity; we must at all times keep an eye upon that. The first thing to be gained is to get your patient into good physical condition, and keep it at that point all the time. It would be tedious and useless to describe to an intelligent audience all the various kinds of exercise, and the means of inducing the great variety of patients to utilize them; there is one plain rule that you may work on, and that is: Never use force to obtain the end in view; do precisely as you would with a child that you expect to educate by the humane and reasoning method; persuade, reason, induce by well-kept promises of reward—anything but lying or force.

Food, combined with enough exercise, are twin influences to supply the brain with the good blood which is the requisite of every well-working mind. The great drawback to hospital treatment of insane persons is that they have either too little food and too much exercise, or—what is more frequently the case in America—too much food and a lack of sufficient exercise. Amusements of a kind to give mild muscular action, free from too great excitement, are to be commended. Balls, concerts, and theatrical entertainments can be indulged in by some to their benefit, but to the great majority are not well adapted. In the acute stages of certain forms of insanity, the patient raves, swears and struggles to get up, out and away, and, as far as may be possible, he should be indulged in his fancy; a patient with a red face and congested eyes is the better for being on his feet, thus distributing the circulation to the extremities, than by struggling to get free from the horizontal position, in which he must be held by mechanical force; the exercise and the diet of such cases, as well as all medication, is of course supposed to be under the direction of a skillful physician.

With the chronic and apathetic insane, the difficulty is to arouse them to action, and will tax the ingenuity of the attendant to the utmost. With the chronic insane, one of the most popular errors is to utterly abandon them to a life of mental neglect. I do not believe there are ten in a hundred of this class who could not be taught some useful, and to them entertaining, occupation. A man may have lost his ability to appreciate the society of friends, and hold the most absurd delusions—he may have forgotten all he had learned, and yet be taught some pleasing and valuable mechanical employment. The former teacher, lawyer or physician may have lost all remembrance of his profession, and yet he may become a good workman in the greenhouse, on the farm, or in the shop; and many a mechanic may have lost the ability to perform his usual labor, and, I doubt not, might become, under some conditions, quite proficient in law or medicine.

The moral treatment of the insane is one of the most important. It is a kind of treatment that can not be given in "broken doses," but must be constantly in force; it should be administered by every one coming in contact with the patient; no harsh word, no unkind insinuation, no reference to the sad condition of the individual should ever be made in his or her presence.

The greatest drawback to the domestic treatment of the insane is the paramount egotism which usually characterizes them; and when they are in their own homes, the extreme and overbearing manner to all who have formerly been under their control, and the absolute authority they assume, makes home treatment far more difficult than hospital management. In such cases the best thing for the patient will be to go on a journey of some kind, or make a visit to some one much loved or respected. Frequently we obtain the best results from having the patient surrounded by strangers, before whom most perfect self-control will be used.

As to the influence of religious exercises, or any kind of religious instruction, I do not think that in the majority of cases any harm will arise, but, on the contrary, some good may be expected. The influence of the religious sentiment in the human mind is, as a rule, more powerful for good than evil, and should be cultivated as a curative measure rather than to be avoided as a disturbing element. I have not been able to find any person who has gone mad because of religion, but many become religious in a popular sense because they are insane. Such persons, under what is called religious excitement, give vent to their thoughts in mingled prayers, blasphemies, ravings, and most obscene utterances. The typical religious "crank," so well-known in this country, is not a "crank" because he is religious, neither did religion make him a "crank." You may put it down as a rule that more mad people become religious (using that term in its phenomenal sense) than religionists go mad. In selecting the form of religious instruction, I would suggest that it be of the most gentle, soothing kind, free from the rant and stage effect which so frequently mars the true spirit of sacred teaching. Music, either vocal or instrumental, has a most soothing effect, and can be utilized with benefit in most violent cases of insanity; reading and story-telling has the same charm on many of the insane as for children.

All that I have said pertains to generalities, for the endless variety of cases one would have to deal with, if special treatment were described, would require the whole life history of each patient.

I will call your attention to another important point, upon which much of the success of domestic treatment will depend—and that is, to have no manifestation of fear when dealing with the insane. No class of persons so readily perceive their power, or so gladly use it. If they observe that you fear them, they are stimulated to do the most outrageous things, and it is better that they be committed to an asylum or hospital than to be surrounded by those who manifest fear.

I submit to your consideration a few rules, which are used in most establishments for the treatment of the insane, and which have the same import in the management of those who are kept at home:

Treat the patient with uniform attention and respect. Greet with friendly terms and salutations, and exhibit such other marks of kindness and good will as evince an interest and sympathy. Speak in a mild and persuasive tone of voice, and never address the patient coarsely or by nickname.

Never speak in a loud or authoritative, scolding voice, nor in an excited nor threatening manner.

Never ridicule, mock, taunt, or otherwise irritate or provoke a patient. Never stimulate them to manifest the peculiarities of their infirmity to gratify the curiosity of others.

Never interrupt a patient who may be making statements regarding yourself to others, no matter how false or absurd it may be.

Never strike, choke, pinch, or use any unnecessary force in handling such patients as may require restraint. No sort of punishment can be regarded as an element of treatment.

Never put handcuffs, anklets, or any kind of restraining apparatus upon a patient—no matter how violent he may be; it has a tendency to degrade him, and there is great danger of doing serious injury to the limbs or internal organs.

Verily, "the sense of oppression maketh a man mad." So sayeth the preacher. In this connection I would call your attention to the very common error of trying to hold or restrain persons who are suffering from epileptic or other convulsions. It is the greatest cruelty that can be perpetrated upon the afflicted one. To lay hands upon, or to even touch, a person who is suffering from hydrophobia or poisoning by strychnine, is of itself sufficient cause to throw him into most violent convulsions. This rule holds good in every form of spasmodic action. Remember, too, that mental spasms, if I may use the expression, may be excited by muscular irritation. It is for this reason that I would abolish every kind of mechanical restraint from every hospital for the insane in America, as I am convinced that it is of itself a source of excitation of the graver forms of permanent mental alienation, and retards the recovery of all those subjected to it.

The question as to what class of cases would be better, or as well, taken care of at home or under domestic treatment, is somewhat an open one, for we have to consider that it is as yet a matter of experiment. I have no doubt in my own mind that there are thousands of the chronic, harmless insane kept in the wards of hospitals who would be happier and, to some extent, useful at home, or upon board in the country if their friends do not like to have them seen at their own domiciles. The majority of the hospitals swarm with a variety of inmates who sit idly against bare walls in dismal wards, year after year, fed and watered like cattle, waiting simply to die. The acute stage of their disease having passed, they are classed as incurable, and their life ends, so far as any further usefulness goes. I believe, too, that the inducement held out by a too indulgent State government, almost begging persons to come in and live free upon her bounty, is having a baneful influence upon the American people, and induces a condition akin to that which pauperizes Europe—that of expecting the State to take care of the citizen at public charge. The gradual obliteration of that sensitiveness—once the pride of the independent—is what causes our free benevolent institutions to be filled to overflowing, and causes an apparent increase of insanity, that does not in reality exist. This I deem largely a matter of culture, and culture of a bad tendency. Fifty years ago it was difficult to get even the acute and dangerous class of insane to come to the hospital, so loath were their friends to partake of public assistance. Since that period there has been a large emigration of the lower classes of Europe, who have in their own country been constant recipients of charity of a public kind. They have no sensitiveness to overcome, and find but too ready a refuge in our asylums for any that are not quite able to take care of themselves, or are too indolent to do so—it is such an easy thing to shift the disagreeable incumbrances upon the State.

This is going to the other extreme, and foists useless burdens on the tax-payers, and breeds a dependence in the hearts of the people that is unworthy the high standing we have held as a free and independent nation.

There is about as much reason for the State to take charge of and treat the chronic consumptive as it has the chronic insane who are of the harmless kind. When the day comes that we have a better understanding of this matter, and quit building palaces, and offering inducements for persons to fill them free of charge, we will behold a wonderful decrease of insanity. Then, instead of having a little more than one in five hundred, we will see the ratio fall back to the old standard of one in about twelve hundred.

While I thus think that the harmless chronic lunatic may be easily kept, and to an advantage to himself, it is quite uncertain as to the acute cases. With the acute, the chances are that they will be much better off if sent early to a place where such cases are constantly being treated. This is particularly the case if the one is of violent disposition, or inclined to escape. This class may be cared for quite well, if their financial standing is such that they can command the constant attention of well qualified nurses without being sent to hospital or retreat.

In conclusion, let me assure you that the good work to be done in this special field is new and vast; the same good rules and principles that have been taught you pertaining to the general care of the sick, will stand you in good stead in the domestic care of the insane. I do assure you that no more interesting study will ever be presented to our investigation.

There is something sacred about insanity—the traditions of every country agree in flinging a halo of mysterious distinction around the unhappy mortal, stricken with so sad and lonely disease. The poet who has most studied from nature—the immortal Shakespere—has never made our souls thrill with more intense sympathy than when the personages brought before us were bereft of reason. The gray hairs of King Lear are silvered o'er with additional veneration when he raves, and the wild flower of insanity is the tenderest that decks the pure garland of Ophelia. To contemplate what was once great and resplendent in the eyes of man, slowly mouldering in decay, has never been an unprofitable exercise of thought, and to muse on reason itself prostrate, can not fail to teach us our complete dependency.

With all the fastidious pride of fancied superiority, and in the full plenitude of our undimmed reason, we can not face the breathing ruin of a noble intellect undismayed. The broken sounds, the vague intensity of that gaze, those whisperings that seem to commune with the world of spirits, the play of those features still impressed with the signet of immortality—though illegible to our eyes—strikes us with that awe which the obelisk of the desert, with its insculptured riddles, inspires into the Arab shepherd.

If to dwell among ruins and amid sepulchers, to explore the pillared grandeur of the tenantless Palmyra, or the crumbling wreck of a Roman Amphitheater once manned with applauding thousands and rife with joy, now overgrown with shrubs and haunted by the owl—if to soliloquise in the valley where autumnal leaves are thickly strewn, ever reminding us by their rustle as we tread the path "that all that's bright must fade"—if these things beget the mode of soul in which the suggestions of Heaven find radical adoption—how forcibly must the wreck of mind itself, and the mournful aberration of that faculty by which most we assimilate to our Maker, humble our self-sufficiency and bend down our spirit in adoration.

NEWCASTLE, IND., January, 1885.

E. S. Elder, M. D., Secretary of Indiana State Board of Health:

DEAR SIR—In pursuance of the request of the State Board of Health, communicated to me by you, I undertook, on the 15th of October last, the examination of five hundred Indiana hogs, with a view to determine how extensively they might be infected with trichinæ, and to prepare a report upon the subject of trichinæ and trichinosis.

I have been able to give only evenings and odd moments to the work, being engaged in the active duties of my profession; hence, the labor has been performed under pressure for want of time, but has been as thoroughly performed as possible within the limited time given to me.

I herewith present to you my report, which embraces not only the work done since the time I entered upon this work for the State Board, but also much previous study and investigation in the same direction.

I hope the work may result in good to the cause of public sanitation.

With respect, I am yours, truly,

T. B REDDING.

TRICHINA SPIRALIS AND TRICHINOSIS, INCLUDING AN EXAMINATION OF INDIANA HOGS.

PREPARED UNDER THE DIRECTION OF THE INDIANA STATE BOARD OF HEALTH
BY THOMAS B. REDDING, A. M., PH. D., FELLOW OF THE
ROYAL MICROSCOPICAL SOCIETY, ETC..

1884—1885.

In presenting this report, I have the pleasure of acknowledging my indebtedness, for many of the facts and thoughts contained therein, to the valuable and exhaustive report of the late W. C. W. Glazier, M. D., Assistant Surgeon, Marine Hospital Service, on "Trichnæ and Trichinosis."—1881, prepared under the direction of the United States Marine Hospital Service; and also the excellent work of M. Joannes Chatin, entitled "La Trichine et la Trichinose,"—1883, J. B. Baillière et Fils, Paris; Also to the works of Leuckart, Cobbold, Pagenstecher, Gerlach and others.

I also tender thanks to Messrs. Kingan & Co., of Indianapolis; Messrs. Baldwin & Roberts, of Newcastle, and Messrs. Collins and Welch, of the same place, for favors shown in furnishing specimens of pork; also to Dr. E. S. Elder, and others, for use of valuable books.

INPORTANCE OF SUBJECT—INTRODUCTION.

"My people are destroyed for lack of knowledge."—[Hosea iv, 6.

"Therefore shall the land mourn and every one that dwelleth therein shall languish with the beasts of the field, and with the fowls of Heaven; yea, even the fishes of the sea shall be taken away."—[Hosea iv, 2.

These prophetic words of Hosea, though spoken of a different subject, are as true to-day, when applied to the lack of the peoples' knowledge of sanitary laws, as when uttered by Hosea more than two thousand five hundred years ago. The cattle are dying of anthrax, tuberculosis, Texas fever and other preventable diseases; hogs are dying of cholera and trichinæ; sheep are infected with strongylus and numerous parasites, that proper knowledge, rightly applied, would prevent; our chickens and turkeys are dying of cholera and other diseases; even the fish of our rivers and seas are being poisoned by the filth poured into them by men, while men are dying of small-pox, malaria, cholera, trichinosis and many other preventable diseases; and the children are being slaughtered by the millions, while they ought to live to be old men and women, so that it might be said of our land:

"There shall yet old men and old women dwell in Jerusalem, and every man with his staff in his hand for very age, and the streets of the city shall be full of boys and girls playing in the streets thereof."—[Zech. viii, 4, 5.

That the people are destroyed for lack of knowledge is alarmingly true. Many thousand perish every year for the want of knowledge within easy reach, yet the mass of humanity lives on in willing ignorance, without an effort to know how to live well and long.

A large per cent. of diseases come to man through the use of poisonous, diseased and parasite-infected foods, and from poisonous, disease-infected water and drinks.

It is part of the work of sanitarians and Boards of Health to awaken people out of this sleep of death; to stimulate them to know themselves and their food; to choose the good and reject the bad.

One of the most distressing and fatal diseases, resulting from the use of unhealthy food, is trichinosis, infection with trichinæ, a disease that can be infallibly guarded against, if we have the knowledge to do so, and fortunately that knowledge is easily obtained. This disease has swept its thousands into the grave prematurely through intense agony and suffering, all for the lack of knowledge and inspection. There need never be another case of trichinosis, if the world will only look and see, or know and do. The rejection of all trichina-infected meats, or their thorough cooking will absolutely protect from and prevent trichinosis; but the thorough cooking, while it will kill the parasite, will not render the food as healthy as it should be for human use.

The attitude of Germany, France, Italy, and other foreign nations toward the American hog, and their refusal to give him a passport to their markets and the stomachs of their people, has touched our American people in a very tender place—the pocketbook—and far more interest has been awakened in the subject of trichinæ by this unfavorable action of foreign governments than from interests of health or sanitation.

It has been repeatedly charged by many foreign scientists and investigators, that American hogs are more generally infected with trichinæ than those of any other country. Our American investigators and scientists are not able to confirm or deny this charge for lack of sufficient observation. Very few examinations have been made in this country, and before this question can be settled there must be systematic inspection, embracing our entire country and a large number of hogs.

Not only do the interests of health and the preservation of human life demand this, but the vast commercial interests involved in our pork raising makes it less, but forcibly imperative.

Not far from forty million hogs are annually produced in our country, of which about three and a quarter millions are produced in Indiana. If these forty million hogs average two hundred pounds each, we shall have a total of eight thousand million pounds. If 2 per cent. of these, probably a very low estimate, be infected with trichinæ, we shall have one hundred and sixty million pounds of infected pork, every pound of which is capable of producing death in the consumer.

If it be true that our meats are thus infected, we have no right to complain of our uninspected pork being excluded from foreign markets. It will be wiser, far more humane, and honorable, to provide that poison meats shall neither be shipped to foreign ports, nor sold to our own citizens in our home markets; that every hog shall be inspected before going upon the market. The extreme limit of cost for a thorough inspection for trichinæ need not, in any case, exceed the one-tenth of one cent per pound, or twenty cents per hog, and can probably be done for less than one-fourth of this sum—a very small expense compared with the safety secured at home and the advantage of the freedom of foreign markets.

But the advantage of proper inspection, investigation and oversight, in this direction, will not only conduce to the health and safety of our own people, and open to us the markets of the world, but will increase largely the demand for American inspected meats, and, at the same time, will enable and stimulate our farmers and all persons interested in pork raising, to so feed, manage and handle their hogs as to reduce the infection to its lowest limit and, probably, ultimately to entirely stamp it out of existence among us.

In order to present the subject of trichina and trichinosis so as to lead to a full comprehension of its importance in every relation, I shall give, not only the results of my examinations of Indiana hogs for trichinæ, under direction of the State Board of Health, but, also, a brief history of the discovery of the parasite; its natural history; a description of the proce ses of infection of men and animals; symptoms of the disease called trichinosis; methods of prevention; statistics of epidemics, and of examinations; methods of inspection and study, and a list of the principal authorities upon the subject.

EXAMINATION OF INDIANA HOGS.

About ten years ago my attention was directed to the necessity for the examination of all pork used as food. Since that time I have not allowed any pork to be used in my own family that was not first submitted to microscopical examination for trichina spiralis. During that time, and up to October 15, 1884, I examined in all, probably as many as two hundred different animals, but of most of these examinations I kept no record. In this report I shall only include such examinations as I made records of at the time. Since October 15, 1884, I have examined the flesh of five hundred and fifty hogs.

I shall not give details of the several examinations made, further than is necessary to present the results, but can furnish them, if desired, at any time.

"In 1881 I examined twenty hogs and found trichinæ in two, one of them exceedingly full; in 1882 I examined twenty-five and found but one that contained any of the parasites. Last year I examined, at various times during the year, fifteen, and found one that contained trichinæ; these were hogs that had been killed and were sold on our market. I also, during the past winter, examined the muscles of three hogs that had died and were left on the street a few days, and found trichinæ in each of them in great abundance; they were fed in very dirty pens and where rats greatly abounded." (216 p. 45.)

In nearly all cases I examined five sections from each hog. The sections would average nearly three-quarters of an inch square, and from the 1-100 of an inch to 1-150 of an inch in thickness. Many times I examined more than five sections to the hog. The methods of examination are given elsewhere more fully.

From October 15, 1884, to December 31, 1884, I examined the flesh of fifty-two hogs, received from the meat market of ——, at ——. They kill, mostly, young hogs, ranging from nine to eighteen months old. The first twenty-four examined were free from trichinæ. The twenty-fifth, a hog about eighteen months old, raised on a farm about two miles from town, contained numerous encysted trichinæ.

The thirty-ninth, forty-sixth, forty-seventh, forty-eighth, forty-ninth, fiftieth, fifty-first and fifty-second hogs examined, contained trichinæ. The others were free. The fiftieth and fifty-first not only contained recently encysted, but numerous non-encysted and embryonic trichinæ; some just entering the muscle fibers; others yet in the connective tissue. Numbers forty-six to fifty-one inclusive, had been fed a few weeks in the lot adjoining the slaughter house, and had been fed, partly, upon the offal of slaughtered animals and probably were infected from that source. They were all recent cases. Number fifty-two contained an immense number of trichinæ in the abdominal muscles, and a moderate number in the muscles of the back. The butchers assured me that numbers forty-six, forty-seven and forty-eight would be free from parasites, as they had raised them themselves. Upon learning from them that they had been fed as above, I was quite sure that I would find them infected, and the microscopical examination abundantly corroborated my suspicions. They were much surprised when I told them the result and explained to them the probable source of infection, and assured me that they would not thereafter feed hogs upon the offal of butchered hogs.

On the 25th of Octobar, 1884, I received from Messrs. Kingan & Co., of Indianapolis, specimens of 300 hogs, taken from the psoas muscle, or tenderloin. The first 175 specimens examined contained no trichinæ. The 176th, 218th, 219th, 226th, 230th, 233d, 242d, and the 267th specimens contained encysted trichinæ. Most of these contained from one to five trichinæ to each five sections examined. Nos. 218, 230 and 242 were very full of encysted trichinæ. No. 130 showed some cysts partly calcified. The other specimens examined were not infected. Total examined, 300; infected, 8, or 2⅔ per cent. I was not able to learn any particulars as to the age or methods of feeding this lot of hogs.

I have examined specimens from 176 hogs received from the pork house of Messrs. Baldwin & Roberts, the second largest establishment in the State. In the first twenty-six I found no trichinæ. In the twenty-seventh I found enormous quantities of encysted trichinæ. This specimen contained probably 12,000 to 20,000 parasites to the cubic inch of muscle. A small section about half an inch square and about 1-150 of an inch in thickness, contained thirty encysted trichinæ.

Among others examined I found one with encysted and embryonic trichinæ, and six recently infected cases containing in the intrafascicular tissues large numbers of embryonic trichinæ. Two of them were extremely full of these embryos. In most of the specimens muscular degeneration had commenced, and many of the embryos had entered the fasciculi, and the first, or preparatory, processes of encystment had commenced. It is probable that these recently infected hogs had been kept a few days in the yards where large numbers of other hogs had been kept, and were infected from this source; but as I could not trace their history, I can only speculate upon the source of infection.

I examined, during the year, twenty-two hogs from other sources, one of them containing encysted trichinæ.

Total examined, 550; infected, 25; equal to a fraction over 4½ per cent.

The highest percentage of infected hogs were those of the retail butcher shops, in which, out of fifty-two animals examined, nine, equal to about 17⅓ per cent.

were infected. In this case the animals intended for sale were kept from a few days to several weeks about the slaughter house, and fed upon animal refuse and offal from slaughtered animals. No doubt this was the source of infection in most of the cases. How many more retail butchers throughout the State manage in the same way? I have no hesitancy in predicting that in all such cases a large percentage of the hogs killed will contain trichinæ.

METHODS, INSTRUMENTS, ETC.

I have used in my investigations Beck's microscope stand, No. 44, with mechanical stage, achromatic substage condenser; Beck's 1, ⅔- and ⅕-inch objectives; Beck's oculars, A, B, C and D; Tolle's first quality duplex four system immersion, $\frac{1}{10}$-inch, objective of 180° angular aperture; Tolle's ½- and ¼-inch oculars and amplifier; Gundlach's $\frac{4}{10}$ objective of 110°.

When examining merely to determine the presence of trichinæ, I used a ⅔-inch objective and 2-inch eye-piece, giving about 75 diameters, or the 1-inch objective, with same eye-piece, giving about 60 diameters. These are as high powers as should be used for the detection of the presence of the parasite. The higher powers were only used in the study of the structure, histology, and other facts relating to the life-history of the trichina, and the formation of its cyst, etc. Having ascertained, in certain cases, that I had a specimen of a very recent invasion by the parasites, in their embryonic state, I resorted to the higher powers, ranging from 250 to 2,000 diameters, for their more complete study and investigation. I also used like powers in my studies of the intestinal trichinæ, their ovules, and the development of the ovules prior to their birth.

The apparatus and lenses used were all first-class, and every reasonable precaution was taken to prevent any errors of observation. My work has been done slowly and cautiously, from the first, and I trust my observations have been correct. Had more time, however, been allotted to the work than has been possible since I was requested to undertake it, I think my report could have been made more valuable by including much that is necessarily left out.

The flesh for examination was generally taken from the psoas muscle, or tenderloin, and from the pillars of the diaphragm. Other parts have occasionally been used. The sections have sometimes been prepared by freezing the muscle and then cutting in the microtome; at others by using a Valentine knife, but most frequently by taking a thin, ribbon-like piece of the muscle running parallel with the fiber, and placing this in the "Bausch and Lomb" compressor, No. 1,009, and by its use spreading and thinning the muscle for examination. This compressor is admirably suited to this work, and enables one to prepare specimens for examination quite rapidly. Sometimes it may be an advantage to moisten the specimen with a small drop of a solution of one part of liquor pottassæ to seven or eight parts of water, or a solution of glacial acetic acid, one part to six of water. These make the specimen more transparent and facilitate the spreading and thinning of the tissues, but I seldom find it necessary to use anything of the kind. I have often used the various staining reagents, but they are not necessary except to facilitate the histological study of the parasite and its cyst. If the specimen has been in salt, or other hardening reagent, the section should be allowed to soak in pure fresh water a short time before examination, and then treated with a drop of the potassic or acetic acid solution. The use of a mechanical stage and achromatic substage condenser facilitates the examination of every part of the tissue with the most favorable conditions as to light, the condenser enabling us to readily modify the light to suit all the conditions of the tissue. In order that an inspection may be accurate and exhaustive, revealing all that is to be seen, the lenses used should be of the best quality, the light should be under perfect control, the sections should be taken parallel with the fibers of the muscle, and should be thin enough to allow perfect illumination—say from $\frac{1}{100}$ to $\frac{1}{200}$ of an inch in thickness—and be mounted upon a suitable compressor or upon a glass slip with suitable glass cover. If the tissue to be examined is dry, or not fresh, the sections should be moistened with one of the solutions named above, or with water and glycerine, equal parts.

To obtain intestinal sexually perfect trichinæ, their eggs and embryos, I fed cats, rats and mice trichinized flesh, and killed them at different intervals, commencing twenty-four hours after ingestion and extending to twenty days, and in one case six weeks. In this way the parasites were obtained in all stages of development. In this report I have had time only to give general results, and can not give details of the several examinations.

It should be understood that all these tedious processes of investigation are not necessary merely to detect trichina in the flesh of the hog, but are necessary to one who desires to know the life-history of the parasite, the method of encystment, the histological and pathological changes that take place, and the effects upon the animal.

REFERENCES AND BIBLIOGRAPHY.

The references to authorities in the following pages are by numbers, referring to the authors named in the bibliography. Thus, (46) refers to bibliography "46, Colbold on the Discovery of Trichina, etc., *Lancet*, 1866."

The bibliography at the close of this article is as perfect as I have been able to make it from the material at hand and in the time at my command. No bibliography has heretofore been given by any American writer upon this subject, and I trust this will serve a useful purpose to American students.

Titles of works are given without translation, as is best, and saves confusion and mistake in ordering books.

PSEUDO-TRICHINÆ.

It is not every parasite, found in the flesh of animals, that is a *trichina spiralis*. Investigators have described nine species of the trichina, some of them, probably, incorrectly classed as such. The species and names of the investigators who named them are given below, to-wit.:

Trichina spiralis: Owen. (200.)*

Trichina affinis: Diesing. (68 A, t II, p. 114.)

Trichina cyprinorum: Diesing. (Same, p. 115,) also (70, p. 60–61.)

Trichina cystica: Salisbury. (235, t IV, 1868, p. 376.)

Trichina inflexa: Dujardin. (70, p. 294.)

Trichina Microscopica: Polonio. (214, A.); see also, (176 Gaz. Med. 4 June, 1881.

Trichina agilissima: Molin. (189 A, p. 16.)

Trichina circumflexa: Polonio. (214 A.)

Trichina anguillæ: Bowmann. (169 A.) See also, (68 A, t 2, p. 115.)

For the distinguishing differences between these nine so-called species of trichina, I would respectfully refer the reader to "La Trichine et Trichinose Par Joannes Chatin," 1833, Paris, (39)* and the authorities above referred to.

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*Refers to numbers in Bibliography, which see.

There can be little danger of any one being led astray who has studied the trichina spiralis as it usually appears in the hog, especially in its encysted state. But there are other objects, that may be called pseudo-trichina, that may lead the non-expert into error. One of the most common of these, which is very often found in the hog, is the *psoro-spermiæ*, sometimes called "Rainey's sacs." A little attention, however, will avoid any mistake. Psorosperms are granular, elongated bodies lying within the sheath of the muscle fiber. The fiber, in the case of the psorosperm, retains its transverse striation, not only on either side of the enclosed body, but extending directly from the extremities, while the trichina entirely destroys the striation, especially at the extremities. Inexperienced observers might, also, possibly mistake the strongylus paradoxus, and the str. filaria, for trichinæ The first is found in the air passages and lungs of some animals, and the second is found in the sheep of Texas, and elsewhere. Other parasites that have, possibly, sometimes, been mistaken for trichinæ are the following: Spiroptera strumosa, spiroptera erinacei, spiroptera obtusa of the rat and mouse, physaloptera clausa of the hedgehog, the ascaris of the mole, the spiroptera of insects, the filaria sanguinis, the anguilula or vinegar eel, tricocephalus dispar, cysticerci, and probably a few other similar organisms. But it is only the inexperienced observer that will be likely to be misled by any of these. Space will not allow me to describe the distinguishing characteristics of these several parasites, etc. Some of them will be found illustrated in Dr. Glazier's report. (111). See, also, Chatin, (39).

The principal danger of mistakes will be in cases of fresh invasions, where the trichinæ is still in its embryonic state. While in this stage it is not capable of producing trichinosis in any other animal through eating of the muscle tissues. But where hogs feed with others, or eat of the viscera of dead animals, or the excrement of other animals containing living females and embryos, they may, by so doing, receive into the stomach the newly born embryo, or the female containing young, and, possibly, thus become infected.

TRICHINA SPIRALIS—HISTORY OF DISCOVERY.

In 1821-2 Tiedemann (269) described calcareous concretions found in the body of an intemperate person, who had suffered severe and frequent attacks of what had been taken for gout. These concretions are supposed, by some, to have been calcified trichinæ cysts, but the description show them to have been of different sizes from trichinæ cysts.

In 1828 indications were noticed in the human muscle by Peacock, and in 1829 by Klencke, which may possibly have been caused by trichinæ, but scarcely merits notice as a discovery. (39.)

The history of the discovery of this parasite may be divided into two periods: the first from 1832 to 1835, and the second from 1858 to 1860; the first English, the second German. The first described the parasite in its larval, or encysted condition; the second disclosed its life history. (39.)

In 1832 Dr. Hilton (122) described certain gritty particles found by him in the body of an old man who had died of a cancerous affection, which he attributed to parasitic origin, possibly cysticerci, but the proof that trichinæ were present is not conclusive.

In 1834 Sir James Paget (208), then in St. Bartholomew's Hospital, first observed the trichina coiled up in its cyst. He submitted it to a rigid microscopical examination, and described the same as he found it. Dr. Wormald, in the same hospital with Paget, the following year submitted to Dr. Richard Owen specimens of the same flesh examined by Paget, with a description of Paget's discoveries and diagnosis. Dr. Owen (200) fully confirmed the diagnosis and fixed definitely the taxonomic place of the parasite and gave it the name "trichina spiralis," a name now almost universally recognized in all languages where it has been described. The name is from the Greek word thrix (θριξ, τριχός) a hair, and the specific name, spiralis, because coiled up in its cyst in a spiral.

Owen's and Paget's descriptions were, however, very incomplete and gave rise to a good deal of discussion as to the place this parasite should occupy in natural history, as well as concerning its structure. (On this subject consult 163, 128, 80, 243, 46, 64, 18, 173, 278.)

For nearly twenty years the history of the trichina spiralis remained almost stationary.

In 1835 Farre (80) described the intestinal tube and its three divisions, and recognized the ovaries. Bischoff confirmed these discoveries, and Luschka discovered that the slender end was the head. Bristowe & Rainey, Küchenmeister and others, made still further discoveries in its life history, and in 1859 Virchow described the sexually mature worms. Leuckart somewhat advanced our knowledge of the subject during the same year, and efforts were put forth in various directions, by experiment and observation, to fully make out the life history of the parasite.

In 1860 Dr. Zenker treated a case of supposed typhoid fever, a girl aged about nineteen, who had been sick about twenty days. She complained of great fatigue, loss of appetite and intense thirst; there was some fever, swelling, abdominal pains, and most of the usual symptoms of typhoid fever, for which the case was treated, but there were also pains, limited at first to certain muscles, then becoming general and incessant, persisting day and night, then followed violent and painful contractions of the limbs resisting every effort at extension. The girl entered the hospital on the 12th of January and died on the 27th of the same month. The anomalous symptoms had been carefully noted by Dr. Zenker. An autopsy was held, and a careful and minute microscopical examination made of her voluntary muscles, which were found filled with encysted trichinæ. The autopsy showed that certain lesions, peculiar to typhoid fever, such as alterations of Peyer's glands, were lacking, and a microscopical examination of the intestinal contents showed "numerous nematodes reproducing the taxonomic character of trichina spiralis, but having attained their complete development." (39.)

Dr. Zenker, stimulated by his discoveries, made a rigid examination of all the circumstances and conditions under which these parasites had entered the organism and quite thoroughly reviewed the etiology of trichinosis. His discoveries were extensively published and stimulated research. He called the disease trichinenkrankheit, or trichina sickness. (300, 39.) He visited the girl's parents and obtained from them the facts relating to the origin of her disease; learned that she had eaten of pork at a certain time, bought at a certain shop; he visited the butcher who had supplied the meat, and found that he had a charge for pork sold the father at the date named, and that the butcher had himself eaten of the meat, and had been made very sick, but that he had thrown it up; he also learned that a number of other persons had been made sick by eating of the same pork. The butcher came to the conclusion that the meat was not healthy, and refused to sell any more of it, and had laid away the portion remaining unsold. Dr. Zenker obtained some of this pork from the butcher. He examined it under the microscope and found it filled with trichinæ. These discoveries furnished the means for unraveling the mystery. The girl had eaten of the trichinized meat; the cysts were dissolved in the stomach;

the larvel trichinæ were set free and developed sexually; the females gave birth to a numerous progeny; these embryos, finding their ways into the muscles, gave rise to the final symptoms, as observed by Zenker.

These discoveries determined him to make a series of experiments. He fed the infected meat which he had obtained of the butcher to various animals, and in them reproduced all the characteristic symptoms of his trichinenkrankheit, or trichinosis.

By these experiments the developmental cycle of the trichina, its mode of propagation and dissemmination, the etiology and prophylaxis of trichinosis were elucidated in a most complete and brilliant manner. (39.)

Cobbold, (52 p. 152) in speaking of Dr. Zenker's experiments and discoveries, says: "Never in the history of biological science have more valuable issues followed the method of experiment upon animals. Not only has human life been thus saved, but animal life also. State medicine and sanitation have received an immense impulse. The good that has already resulted is incalculable."

Trichina spiralis was first found in the hog by Prof. Leidy, of Philadelphia, in 1846. (160 p. 107 and 159 p. 353.)

Space will not permit me to further trace the history of discovery.

MALE AND FEMALE TRICHINA.

The trichina as found in the cyst is not complete in its development. It is a larval form of the perfect worm. Before it can become perfect it must be freed from its cyst by entering the stomach of some animal suitable to its development. While the trichina remains in the cyst it does not multiply, nor grow, nor change its position. If a piece of trichinous flesh be eaten by man, or any animal in which it may find suitable environments for development, the gastric and other fluids of the stomach, within two to five hours, dissolve the walls of the cyst enclosing the parasite, which is thus set free within the stomach. When thus freed, it rapidly developes into its mature and perfect state. After becoming free, the trichinæ pass into the small intestines. Then commences the rapid increase in size of the worm by the development of the seuxal organs, and thus the increase of its length is limited principally to its posterior portion, while the anterior increases in diameter only, and in twenty-four hours, after feeding, they may have increased one-half their former size, and are, for the most part, capable of procreation." Some of the capsules may remain undissolved in the stomach two or three days. Most of the trichinæ will, however, be found sexually mature within three days.

The full-grown male trichina is from $\frac{1}{20}$ to $\frac{1}{15}$ of an inch in length and about $\frac{1}{800}$ of an inch in diameter; the full-grown female is from $\frac{1}{8}$ to $\frac{1}{12}$ of an inch in length and about $\frac{1}{600}$ of an inch in diameter. The posterior part of the female continues to enlarge after sexual maturity for some time, to make room for the large number of eggs produced.

Copulation takes place within about fifty to sixty hours after the worms are set free, and within fifty-four to ninety hours, most, if not all of the females are pregnant, and within five days the embryos begin to be born. These processes may continue for two weeks or more. (Consult Pagenstecher, Delpeche, Cobbold, Leuckart and J. Chatin.)

The outer cuticle of the trichina consists of a delicate, thin, transparent, structureless, annulated, chitinous membrane, about $\frac{1}{25000}$ of an inch in thickness. The rings are more easily seen in the muscle trichina coiled up in its cyst than in the mature worm. Just beneath the outer covering is a striped longitudinal layer of muscular tissue. On the inner side of this layer, closely pressed together, is a strata of finely nucleated cells, which constitute the lining of the abdominal cavity.

The mouth is terminal. The body is curved in one direction, and, "if we recognize the female genital opening as being on the ventral surface, the curve is uniformly towards the dorsal side." The terminal hooks of the male are found on the convex or ventral side, attached on either side of the anus by broad round bases.

The internal organs consist of an intestinal canal, organs of reproduction and a brain. The canal is very closely alike in both sexes. It is divided into three parts: The first in the anterior part of the body; the second, less constricted, in the central part of the body, or rather forward of the central part; and the third part, which occupies the posterior third and part of the middle third of the body. The stomach composes the anterior part of this last portion.

The brain is a small mass of round ganglion, nucleated cells, surrounding the œsophagus, and from this brain a few very fine nerve fibers may be traced a short distance.

The sexual organs of the male are developed while in the larval state, but the contents are not matured till his liberation. The hooks are also partly, if not wholly, developed after his liberation from the cyst. In the female the reproductive organs are but partly or imperfectly formed in the larval state, but fully mature within two or three days after being set free.

The female reproductive organs consist of an ovary, a uterus and vagina, all lying in an almost direct line, and the uterus, in the fully matured specimen, merging gradually into the vagina. The eggs, or ovules, are produced along the whole length of the ovary on one side, appearing in the earlier stages closely pressed together like a narrow band of minute cells. As they increase in size they become detached and move to the center and opposite side of the ovary. The ovules are spherical, have a germinal vessicle with a comparatively large neucleus, surrounded by a clear vitellus and an exceedingly thin limiting membrane. (39).

The seminal elements, after copulation, occupy such a position in the uterus, that the ovules, in passing out of the ovary into the uterus, must pass through the sperm, by which they are then impregnated. When thus vitalized, the ovules gradually pass downwards towards the vagina, developing as they progress. When near the beginning of the vagina the young trichina has so far developed within the ovule as to be ready for liberty and bursts the delicate wall or membrane confining it and escapes as a bent or curved embryo. As the embryos advance toward freedom, they straighten out and lie, one behind another, in single file, and passing out through the vagina, are born, one by one. The birth of these embryos usually takes place within five days after copulation, or within six to eight days after the infection and liberation of the larval trichinæ within the stomach. But as all of the ovules do not mature and become impregnated at the same time, the embryos continue to be born, sometimes for one or two weeks, or even longer.

The female developes a very large number of eggs. Often 400 to 600 impregnated eggs and embryos may be found in the uterus at a time. This may continue for weeks after the birth of the young commences. On this account it is not very difficult to observe the successive stages of ovule development. It has been claimed that ova have been seen attached to the wall of the ovary eight weeks after infection. It is estimated that one female will give birth to two thousand, or more, young trichinæ. The embryos are born one to three each hour.

The processes of development of the egg of the trichina are very beautifully illustrated in plate two, figures 6 to 22, and the further development of the embryo in plate three, figures 23 to 33, of "La Trichine et Trichinose, par Joannes Chatin," Paris, 1883. (39.) I should be glad to reproduce these exquisite plates here, if it could be done, but must refer those who wish to study this subject to the above work.

The entire development of the ovule occupies about three days. The female commences giving birth to her young possibly as early as the fourth day, in some cases, and may continue until the twelfth week, but usually not so long. Did circumstances permit I should be glad to more fully describe the histological elements, the anatomy and reproduction of the trichina.

The embryo, before birth, in its developed condition, is about $\frac{1}{25000}$ of an inch in length and about half as much in diameter. While in the body of the mother it has the appearance of a delicate granular thread, but afterwards becomes more transparent. At this period the extremities are so much alike that it is difficult, if not impossible, to determine which is the head; but this stage soon passes away. Sometimes in the oldest embryos a delicate cuticula and an axial beaded line can be distinguished. (Pagenstecher.)

In the intestine embryos have been found of nearly all sizes, from $\frac{1}{1000}$ of an inch to $\frac{1}{25}$ of an inch, and with a diameter reaching $\frac{1}{3000}$ of an inch. "The size and appearance of those embryos that migrate to the muscles, remain unchanged during migration. The first changes in the migrating worms are observed after they have reached the fasciculi and take on a condition of rest. (Leuckart.) From the intestines most of the embryos soon migrate to other parts of the body. They are first found in the abdominal and pleural cavities and pericardium, and so constant is their appearance in these cavities that these "may be considered their normal stations." (Leuckart.) They are generally most abundant in the abdominal cavity. From these places they speedily migrate, probably in part through the openings which serve for the passage of the œsophagus and the large blood vessels, and partly through the walls of adjacent parts, and possibly through the blood—though this is doubtful—to the surrounding connective tissue, and thence into the muscles of the various parts of the body. They may often be found free in the loose connective tissue of various parts. Following this loose connective tissue that binds together muscles and other tissues, they find ready access to the remotest parts of the body within a few days after the migration commences. The duration of the migratory period has not been definitely determined, but probably does not continue more than eight to ten days. (103, p. 13. 168, p. 568.)

Sometimes the embryo may be found in the muscle fiber before any apparent change has taken place in the fibre, which indicates a very recent arrival, for degeneration commences in the muscle fiber almost immediately upon the embryo entering the fiber or its sheath.

On the 28th of November, 1884, I examined a specimen from the pillars of the diaphragm of a hog which had been fed, a few days previous to killing, upon offal from the slaughter-house. I found in the loose connective tissue great numbers of free embryonic trichinæ, and also numerous changed muscle fasciculi into which they had penetrated. More than 100 free embryos, and 25 encysting embryos, were found in a section about $\frac{1}{4}$ of an inch square and $\frac{1}{200}$ of an inch in thickness. The section embraced the loose connective tissue between two adjacent bundles of muscles. I examined these with powers ranging from 75 to 1,000 diameters. It is only with careful manipulation and good lenses that the embryo can be identified when it has so recently entered the fasciculi. I have found free and non-encysted embryos in large numbers in more than a dozen different hogs.

When the embryo enters the muscle fiber and becomes encysted therein, or, rather, when it commences that process, it "destroys the inner part of the fasciculus, not only in its immediate vicinity (Leuckart) but, sometimes, to the extent of a quarter of an inch in length." "This destruction consists of a morphological metamorphosis; * * * the fibrillar substance degenerates to a fine granular detritus, and all that can then be distinguished are the neuclei, which appear as small oval bladder-like bodies from $\frac{1}{1500}$ to $\frac{1}{2000}$ of an inch long and $\frac{1}{6000}$ of an inch in diameter, with a sharply defined wall, and with sometimes single and sometimes double solid neucleoles." (Leuckart.)

Neuclei are always more numerous in degenerating than in normal muscle fasciculi. This degeneration renders the fibrilla more or less opaque, and "it appears as a dark thread-like stripe." It also loses its elasticity or contractility, and, owing to this condition, will often be found projecting a short distance beyond the cut ends of the sections.

Various theories have been advanced to account for this degeneration of the muscle tissue. Some consider it due to the progress of the parasite through the tissues; others, that the parasite consumes the substance of the tissue; but as it receives its food in a liquid form only, by endosmosis, probably, this can hardly be true. Probably the regressive changes are due to irritation and inflammatory processes caused by the presence of the parasite. At the same time this degeneration is progressing there occurs a growth of small cells in the neighboring connective tissue, extending the whole length of the sheath and often beyond to other fasciculi. Changes also take place in adjacent capillary vessels to the extent of interfering with the distribution of the inflammatory products. (Colberg.) (53.)

When the embryo reaches the muscle fiber it enters upon a state of comparative, if not complete repose, and rapidly grows to its normal size as a muscle trichina. After entering the muscle a vibratory or exploring motion of the anterior extremity has been observed, by a few observers, for a short period of time, but I have never been able to see any such motion. In twelve to fourteen days after entering the muscle the embryo attains its full size and becomes a larval, or muscle trichina.

As the worm grows it exhibits differentiations of its internal organs. As it increases in length it becomes more slender anteriorly, and begins to coil into a spiral, often commencing thus to coil when not more than $\frac{1}{600}$ of an inch in length. The outward pressure of the worm causes the muscle sheath to enlarge around it, and owing to the elasticity of the sheath, the cavity assumes a spindle shape. In two to three weeks, or less, the worm ceases to grow, and a bright halo will be seen surrounding it, which is now sharply limited by the enclosing muscle, and is the optical expression of the enlargement. (Leuckart, as quoted by Glazier.)

In the fifth week may be seen the first traces of the cyst proper. And after about seventeen weeks the cyst has a clearly defined outline and is fully formed. It is sometimes fully formed earlier than this, possibly; in some cases as early as the sixth week.

In progress of time the capsules become rounder and shorter with more or less fat globules, first at one end, and afterwards at the other. After eighteen months, and in some cases as early as the thirteenth month, calcification, the deposit of lime and mineral matter, commences to take place. In some animals, the rabbit for example, calcification has been known to commence as early as the eightieth day (206, p. 96), and several observers claim to have seen calcification in the hog within three to nine months after infection. (163, p. 67; 206, p. 9.)

Leuckart (163, p. 67) substantially describes the process of calcification as follows: There is, at either pole of the capsule, first a collection of minute calcareous granulations, at first assuming a spread-out, or flask shape. After sometime these particles become a homogeneous mass, having the form of a disk and lying between the layers of the capsular-wall. Sometimes this takes place at one pole only. It is readily distinguished from the other elements of the cyst by its difference of refracting power.

After several years the cyst may become quite opaque from these deposits. The polariscope will aid us in determining the presence of these mineral deposits.

After calcification has taken place, the cysts can be seen with the unaided eye, in a thin microscopical section held up between the eye and the light, as minute white specks. I have a specimen of human muscle in which they may thus be recognized. By mascerating such a specimen in dilute hydrochloric acid the mineral salts are dissolved, and the cyst, with the contained worm, rendered transparent.

As a general rule the cysts in the hog are not found calcified, owing to the fact that hogs are killed while young before that process commences. Among the six hundred or more animals that I have examined, I have found two only that contained calcified cysts.

IN WHAT ANIMALS FOUND.

Trichinæ have been found in quite a number of different animals, mostly mammals. Without citing authorities, I enumerate the following animals in which they have certainly been discovered, viz.: The hog, cat, dog, rats, mice, rabbits, hippopotamus, and in man. Also in young horses and cattle, when artificially infected. They are reported to have been found in the ape, the crow, the badger, marmot, marten, mole, polecat, raccoon, geese, trito cristatus, hedge-hogs, salamanders, eels, sheep, the hen, fish, and frogs. Doubtless some of these last are cases in which other parasites have been mistaken for trichinæ. It is probable that trichinæ never become encysted in the flesh of birds, and are never found in the batrachians and reptilia under normal conditions.

The best authorities agree that trichinæ do not become encysted in birds, but intestinal trichina, male and female, and their embryos, are readily obtained from the intestines of birds, including our domestic poultry, after feeding them trichinous flesh, but for some reason, not yet understood, they do not migrate to the muscles and become encysted, as they do in men, hogs, and some other animals.

M. Chatin is of the opinion that reptiles and batrachians do not become trichinized, because of the temperature of their bodies not being suitable to the development of the parasite, and that their immunity depends solely upon the variable temperature of their bodies, and says that when the temperature is maintained artificially at 30° (Cent.), we may have not only perfectly developed sexual trichinæ, but also the larva migrating into the intrafascicular tissues, but as soon as we abandon the subject to the surrounding temperature, it ceases to offer the conditions necessary to these parasites. (39, pp. 82 and 85.)

If these views be correct, it is sufficient to account for the occasional appearance of the trichinæ, temporarily(?), in these animals.

I found in the pectoral muscles of a frog, taken from a branch into which the washings, etc., from a large pork-house flow, a large number of encysted parasites, coiled in a spiral, and very closely resembling the trichina spiralis. The cysts were, however, nearly circular and quite different from those found in the hog. At the time I supposed them to be trichina spiralis, with modified cysts, and in my paper before the Sanitary Convention at Anderson, Ind., April, 1884, (216), stated that I had found trichina in the frog; but upon a more thorough examination of the parasite thus found, I am satisfied that it is not a trichina spiralis, but a different species, which I am not prepared to name at this time. I had injected the frog with a view to studying certain parts of the viscera. Observing a thin section of the pectoral muscle to present a peculiar appearance, I mounted and examined it as a matter of curiosity. The remainder of the body had in the meantime been thrown away, before the discovery of the parasites; hence it has been impossible to verify all the points that should be verified to make a clear case. The frog was caught in the warm weather of July, and was kept in a pail of water three or four weeks, at a temperature of summer heat. This may have had something to do with the development of the parasites and the incomplete and imperfect cysts inclosing it.

Cats are very frequently infected with trichinæ. "Two years ago a cat, living at my barn, had five kittens. When the kittens were about eight weeks old, the mother sickened and died; about the same time the kittens also became sick, and one after another died. I examined pieces of the muscles of the mother and each of the kittens, as they died, and in all I found vast multitudes of encysted and encysting trichinæ, and great numbers of free trichinæ in the stomach and intestines. A short time before the mother-cat sickened, I found her and her kittens making a meal off a large rat which she had killed, and which was probably the source of infection." (216.)

Two out of six other cats examined by me contained trichinæ. "Herbert found trichinæ in the cat in 1845, and Guelt in 1849." (111.) Dr. Seiler, of Philadelphia, told me a few years ago that he had seldom or never examined a cat at Philadelpha that did not contain trichinæ. In Dearborn and Ohio counties, Indiana, three out of four cats examined were full of trichinæ. Voget, Rupprect, Kühn, and numerous other authorities, report having found trichinæ in cats. (286 B., p. 409, note; 112 B., p. 114; 163; 151 A.) [See Addenda.]

PARTS OF BODY INFECTED.

The encysted trichinæ are always found in the voluntary muscles, and not often elsewhere. They are sometimes found in the adipose tissue adjoining the muscles. (39, pp. 87–93.) Those muscles adjoining the abdominal cavity are usually the most infected, especially the pillars of the diaphragm and the psoas, or tenderloin muscles. If half a dozen sections of either of these muscles be examined and no trichinæ found, it will be pretty safe to conclude that the animal is not infected; yet these muscles may, in some cases, be almost or entirely free from the parasite, while others are infected, but such infections are generally quite light. The heart is nearly exempt from the invasion of the trichinæ, only a few having ever been found within its muscles.

Before encystment the embryos and migrating worms may be found in the intestines, in the pleural and pericardial cavities, in the connective tissue and muscle fibers.

The central part of a muscle may be almost free from the worms, while the ends, or those parts near the tendons, are quite full.

In making examinations it is best to take that part of the muscle near its origin or insertion. It is best, also, to examine the pillars of the diaphragm, or the psoas muscle first. If no trichinæ are found in these, it is not probable that they will be found in other parts of the body.

No domestic animal suffers more from contagious diseases than does the hog. It is estimated that the losses in the United States for 1877, occasioned by diseases of this animal, amounted to more than twenty million dollars, and for 1878, to more than thirty million dollars. As is shown elsewhere, the hog is made sick by the invasion of trichinæ, and, doubtless, in many cases his sickness, from this source, has been attributed to cholera, or some other disease. The cholera is a very distinct and different disease, however. With many hog raisers the temptation is very great, when a few of their hogs become sick, to hurry them into market or the pork barrel, for some one else to consume. It is unquestionably true that much diseased meat, of various kinds, is exposed for sale in our markets—far more than consumers imagine.

NUMBER OF HOGS INFECTED.

It is probable that in every part of the world where hogs exist they are, to some extent, infected with trichinæ.

Gerlach gives a table of 664 infected hogs, found principally in Germany, from 1864 to 1874, inclusive. (104.)

In the Duchy of Brunswick, from 1866 to 1876, 781,611 hogs were examined, of which 125 contained trichinæ—250 were otherwise diseased and unfit for food. (111.)

Berkan states that of 60,000 hogs killed in the four years preceding the year 1863, in Brunswick, seven were infected. In Blankenburg 8,000 were examined and nine found infected. Fifteen were found infected from other parts of the duchy. (14.) Of 67,427 hogs examined in Rostock, 1867–1877, 42 contained trichinæ. (Petri.) (212.)

Of 391,913 hogs killed in Gotha, 1865–1876, 46 contained trichinæ. (Schuchardt.) (239.)

In 1876, 1,728,595 hogs were examined in Prussia, of which 800 contained trichinæ. (78.) The highest degree of infection found in Guessin was 1 to 141.

In 1877, 2,057,272 hogs were examined in Prussia, and 701 of them contained trichinæ. (100.)

In Stockholm, 1865–1875, 81,363 hogs, including whole hogs, halves and hams, were examined, and 143 were infected. (289.)

Of 8,174 hogs examined in Copenhagen, 15 were infected. (140.)

In Russia of 3,550 hogs examined 5 contained trichinæ. (145.)

In all places where examinations have been made, hogs fed in cities contained more infected animals, in proportion, than those fed in the open country.

In 1879, 3,164,656 hogs were examined in Germany by 14,413 experts. American hogs were found to contain trichinæ in the proportion of 2 per 100; indigenous hogs 1 to 9 per 100. Nine per cent. of those examined were measly. (39, p. 209.) Measly pork is the source of infection for the tape worm, the larval form of this worm, cysticercus, causing the measels in hogs, and developing into tape worm in man.

In France, of 50,210 pieces examined, 993 contained trichinæ. Of 53,318 pieces examined, 1,087 contained trichinæ. These purport to be from American hogs. (39.)

No trichinæ were known to exist in Europe prior to 1830; but, no doubt, it was owing to a want of observation and knowledge, rather than to their absence. It is probable they existed there long before, and that many persons died of trichinosis, whose deaths were attributed to other causes.

TRICHINÆ IN AMERICAN HOGS.

There has, as yet, been no systematic examination of American hogs for trichinæ. Isolated examinations have been made, here and there, and upon these we must base our estimates of the percentage of infection. The impression prevails in Germany, France, Italy, and elsewhere in Europe, that American hogs are more largely infected than those of any other country. This may be true as to certain parts of America; but is probably not true as to other parts. The percentage varies very much in different districts. I have collected the statistics of all examinations made in this country, and of American hogs examined elsewhere, so far as I have been able to find them.

Examination of American hogs, by the piece, in Prussia, shows an average of 4 per cent. infected. This does not show the absolute infection, for more than one piece may have been taken from the same hog. In Germany we find that of 170,382 hams examined 2,050 were trichinous; that of 60,341 sides examined, 551 were infected.

At other European points, where examinations were made of American meats, we find that of 332 sides examined, 2 were infected. Of 5,673 pieces examined, 47 were trichinous. That of 103,528 pieces examined in France, 2,080 contained trichinæ. (39.)

The following is a table of all the examinations of American meats that I have been able to find:

TABLE OF AMERICAN HOGS EXAMINED.

No. Examined.	No. Infected.	NAME OF EXAMINER.	PLACE.	WHERE REPORTED, ETC.
88	14	Prof. Müller	Berlin	Billings, 16.
400	(?) 00	Dr. Patton, 1881		Newspaper report.
1,328	28	Academy of Science		B'n M. & S. Jour., v. 74, 136.
100	8	Belfield & Atwood	Chicago	13.
8,773	345	*Dr. F. S. Billings	Boston	16.
5,400	22	†Dr. J. T. Payne	New Orleans	209.
330	2	‡Drs. Smith & Myers	Texas	257.
30	00	Dr. C. A. Simpson	Georgia	209, p. 138.
180	00	Prof. Stager	Nashville	209, p. 138.
200	00	Dr. Ames	New Orleans	209, p. 135.
28	00	Dr. Billings	Boston	16.
1,000	68	†Drs. G. & W. E Sutton	Indiana	259, p. 123.
245	40	Drs. Hardi'g & Rob'n	Indiana	259, p. 124.
200	13	Drs. Gatch & Miller	Indiana	259, p. 124.
610	29	T. B. Redding	Indiana	This report.
Unknown	Unknown	Dr. J. V. Stevenson	Indiana	259, p. 124.
60,341 sides	551	German Examiners		See elsewhere, this report.
170,382 hams	2,050	German Examiners		See elsewhere, this report.
103,528 pieces	2,080	French Examiners	Havre	39.
392 sides	2	Europe'n Examiners		See elsewhere, this report.
5,673 pieces	47	Europe'n Examiners		See elsewhere, this report.

[See Addenda.]

Total whole hogs, 18,912; infected, 569.

Total pieces of hogs, 340,316; infected, 4,730.

Total Indiana hogs, 2,055; infected, 150.

*All of these, except about fifty, came from Chicago. The rate of infection in 1879 was 1 to 17; in 1881, 1 to 28; in the fifty not from Chicago, 1 to 44.

† Most of this lot were Southern hogs. Eighteen of those infected were found in a lot of 520 received from St. Louis.

‡ Hogs killed at San Antonio, Texas, April to November, 1881.

Nearly one-third of all hogs examined in this country were from the South, and among them only twenty-four contained trichinæ, indicating that Southern hogs are but slightly affected, but this conclusion can not be safely adopted without more extensive observations.

From the foregoing tables and statistics it will be seen (excluding pieces) that 18,912 American hogs have been examined, of which 569, or a little more than 3 per cent. contained trichinæ. If we include the pieces reported as examined at Havre in France, and elsewhere in Europe, counting two pieces to each hog, we shall have a total of 189,070 American hogs examined, of which 2,934, or nearly 1⁵⁄₉ per cent. were infected.

In Indiana, Drs. George and Willis E. Sutton, of Aurora (259), report that they examined, during the fall and winter of 1874–5, more than 1,000 hogs, and found from 4 to 12 per cent. affected. The first 500 examined by them, contained forty-eight, or 9⅗ per cent. of infected hogs. If we assume that the other 500 examined by them, of which no record was kept, contained the lowest number of infected hogs, or only 4 per cent., we shall have 6⅖ per cent. of all the hogs examined by them infected.

Drs. Harding and Robbins, of Lawrenceburg (259), examined up to April, 1875, 245 hogs from that neighborhood, of which 40, or 16⅓ per cent., contained trichinæ.

Drs. Gatch and Miller, of same place (259), examined 200 hogs, about same time, of which 13, or about 6 per cent., contained trichinæ.

Others have, doubtless, made examinations, but I have not their figures.

I have examined 610 Indiana hogs, of which 29, or 4¾ per cent., were infected. Total Indiana hogs examined 2,055, of which 150, or over 7⅓ per cent., were infected. Examined at and near Lawrenceburg, 1,445, of which 121, or nearly 8⅓ per cent., were infected. None of those examined by me were from the neighborhood of Lawrenceburg. It appears, from this, that Lawrenceburg and vicinity is a center of high infection.

Total number of hogs examined in Europe (excluding those counted as American hogs, and excluding 3,164,360, in which definite numbers are not given), 5,184,360, of which 1,888 were infected, or one to 275, nearly. Of the 3,164,360 excluded above, from 1 to 9 per cent. of those indigenous to Germany, and 2 per cent. of those from America, were infected. I have no means of determining how many of these were from America.

Wherever examinations have been made trichinæ have been found infecting men, hogs, cats, mice and rats. They have been found in Egypt, Palestine, Turkey, China, Russia, Germany, Sweden, France, England, America, and many other places, in the hog, both wild and domesticated. The few examinations made in this country, as well as those made in Europe, show that hogs fed in cities, in close pens where rats and mice abound, and where they are permitted to feed upon offal and the excreta of man and animals, are much more infected than those fed in open, clean places, such as fields, prairies, etc. Hence we must conclude that the opportunities for infection are fewest in sparsely settled districts, the open country, large and clean fields. Most of the examinations in this country have been made of animals from the great pork markets of the West, but it is probable that fully as many trichinæ will be found in the hogs of the more populous East, where they are more often fed in pens in contact with rats, and often upon various kinds of offal.

SOURCES OF INFECTION.

From whence do hogs derive trichinæ? This question has not been satisfactorily answered. Some claim that rats are the original source of infection; others, that man is responsible for the disease in the hog; others look to other sources for infection; but none of these theories have sufficient support to make them certain. Sufficient facts have not as yet been discovered to solve the question. It is certain that hogs and rats often feed together, and that hogs eat dead rats, and that rats eat of the flesh of the hog; but it is just as likely the hog is the source of rat infection, as it is that the rat should be the source of hog infection. Probably they both act as infectants, not only to each other, but to their own species as well. (For a more exhaustive discussion of this subject, see 111.) Many examinations of rats have been made, showing as large or a larger per cent. of infection than is found in any other animal.

Gathering up all the statistics upon this subject, which I have been able to find among German, French, English and American reports, I find that of 2,748 rats examined 318 contained trichinæ, or more than 11 per cent.; that the per cent. is always largest where the rats examined came from the vicinity of large pork packing establishments. In Saxony 50 per cent. of the rats examined, received from the flayers, contained trichinæ, and 20 per cent. of all the rats caught in that country were infected.

The rat is very readily infected by feeding it with bits of infected hog meat, and affords a cheap and ready means for studying the parasite in all of its phases of development. The cat furnishes an equally favorable host and possesses some advantages from being larger and more easily managed. Cats are very numerously infected, especially in our pork-packing cities.

Any animal containing trichinæ may be the source of infection to any other animal susceptible of infection. This may take place either by receiving the females containing embryos, or the young living embryos, voided by animals infected, upon food taken into the stomach, or, possibly, from water in which they may have been voided, or from eating the flesh of dead animals containing encysted trichinæ; this last being the most usual method of infection.

Trichinæ adhere to the law, that every living thing is the offspring of a like living thing, as closely as do other animals, and, no doubt, began to be when the earth was made to bring forth the living creature, each after its kind, and it is not likely we shall ever know in what animal they first had a home. We can be certain, however, that if we, or our animals, do not receive the living trichinæ from some source outside of ourselves, through food or drink, there can be no infection.

TRICHINOSIS IN ANIMALS; SYMPTOMS, ETC.

A series of experiments were made by M. Chatin upon Guinea pigs and rats, by feeding them salted, trichinous American pork. He made a record of the symptoms and results. These may be found, in detail, in his work, "La Trichine et Trichinose," 1883, pp. 160 to 182. I can only summarize here. In the case of the Cobaye or Guinea pig he made seven experiments.

In the first experiment, diarrhea commenced on the fourth day, was severe on the fifth, and the discharges contained embryonic trichinæ; on the sixth day, appetite nearly nothing, abundant diarrhea and embryos in discharges; seventh day, great prostration with continued diarrhea and embryos; death on the ninth day. In the second experiment, the diarrhea commenced on the fifth day after infection; this continued, increasing in severity, for ten days; general prostration on the fifteenth day, and death on the sixteenth; embryos in discharges from seventh day. In the third experiment, the diarrhea set in on the sixth day and death occurred on the nineteenth day, with similar intervening symptoms as before. In the fourth experiment intense diarrhea commenced on the second day after infection and the discharges contained numerous embryos. Death on the fourth day after infection. In the fifth experiment intense diarrhea commenced on the third day and death followed the next day. Discharges contained embryos. In the sixth experiment diarrhea commenced on the fifth day, and death ensued on the eighth day. In the seventh experiment but little of the trichinous food was given to the animal at a time. Diarrhea set in on the eighth day, which continued six days; by the eleventh day recovered apparently. Gave a fresh supply of trichinous food on the twentieth day after first infection; diarrhea on sixth day, continuing four days. A third dose of trichinous food was given on the fifth day after the diarrhea had ceased. On the second day it manifested pain on motion; its motions were few and slight; it was stupid and evidently not well; on the third day, marked emaciation; on the fourth, abundant diarrhea; intense diarrhea on the fifth; death on the sixth day after the last infection. In these experiments the symptoms appeared early, or later, according as the dose was large or small.

In two experiments of repeated infections of rats, the average time from infection to the beginning of the diarrhea, was about six days. The average duration of the diarrhea was about five days. Five successive infections in one case, and six in the other, without producing death, establishes the remarkable resisting power of the rat. In these cases, upon killing the rats, their muscles were found filled with encysted trichinæ. But if the ingestion of trichinous flesh be large enough, or be followed up by rapidly succeeding ingestions, the rat can not resist. In some experiments, conducted by myself, the main features were the same as observed by M. Chatin, except that I gave the rats all the trichinous food they would eat, and death ensued in six to twelve days. M. Chatin records one death on the fifth day. I found, that where a large amount of the trichinous food was eaten by the rat, that diarrhea ensued in about sixty-five hours after the ingestion. I fed fresh meats that had not been salted.

The symptoms of trichinosis in hogs have never been thoroughly studied, so far as I am able to learn. A few experiments have been carried out, however, which may serve as a basis for a few remarks on symptoms in this animal. From the meagre information to be derived from the sources of information to which I have access, I conclude that the symptoms of trichinosis in the hog are usually less severe than in man. Probably, as a general rule, the infections are successive and light. In light cases but few and mild symptoms will be manifest and may escape notice entirely.

Gerlach ("Die Trichinosis," Hanover, 1873, p. 35 et seq.) says that pigs, from three to six months old, become infected more readily and completely than older animals. The symptoms, in light cases, consist of slight gastric disturbances appearing generally on the third and fourth days after infection, and in a few days these disappear. There is diminished appetite, lessened vivacity, drooping of the tail, and a tendency to constantly remain at rest. In severe cases, in five to seven days, there is a loss of appetite, diarrhea, vomiting, restlessness, loss of vivacity, hollowed back, drooping tail, posterior part of body stretched out, pawing with fore feet, fever, weakness, erection of bristles, paleness of skin, irregularly distributed and diminished temperature. The diarrhea continues six to eight days, or longer; in pigs death often intervenes during this stage.

The symptoms of muscular infection commence gradually from the eleventh to the twentieth day. They appear and increase in intensity as the intestinal symptoms abate: fever comes on; there is restlessness and an unsteady gait; the animal is stiff and tottering, irresolute and troubled. In very severe cases the animal will lie flat on its side with the fore legs stretched backwards, from which position rising is always difficult and requires help. The muscles about the mouth and throat become stiff; eating and swallowing are difficult; though appetite may prompt the animal to feed, it turns away from its food; in some cases there may occur lockjaw; the lips and tongue move with difficulty; the animal dips his snout into liquid food in order to be able to swallow the little he can take. Difficulty of breathing is often present, as well as more or less wheezing and panting. The voice is greatly changed, and, in some cases, wholly lost; the eyes water at times; there is redness and swelling about the face; there is more or less emaciation, according to the severity of the case.

Where there is recovery, it usually takes place in about six weeks, but, as in man, there can never be a perfect recovery, but minor and modified symptoms will continue for months, if not during life. The trichina, in becoming encysted, act as so many centers of irritation, and as so many centers for abnormal, pathological changes in the animal's body during its remainder of life.

Many of the foregoing symptoms are common to hog cholera and other diseases, and, very likely, symptoms of trichinosis in hogs have often been attributed to other diseases.

Of twenty-three severe cases of trichinosis in hogs, produced by experimental infection, twelve died. The deaths occurred, two on the fourth day, and one each on the sixth, ninth, eleventh, fifteenth, sixteenth, seventeenth, nineteenth, thirty-fifth, forty-second and forty-ninth day after infecting. Of seventeen moderate cases, all recovered. (111, pp. 136–144, also 103 A.)

In moderate cases of trichinosis in hogs, there will be found in the muscles, after the migration is fully completed, from one to two trichina in each five microscopical sections of half an inch square. In severe cases we may expect to find from three to twenty in each preparation. A recovered hog may, therefore, have from six to forty thousand encysted trichina in every ounce of its voluntary muscles. Where hogs have survived and great numbers of trichina are found in their muscles, it is quite certain that they have received them at several successive ingestions of trichinous food. A single very large ingestion is almost sure to result in death.

It is claimed by most observers that young hogs are most easily infected. This is probably true, but so far as I have examined hogs for trichina, I have found them more frequently in old than in young animals. Dr. Sutton seems to have had the same experience (259). The several cases of fresh invasions observed by me were in animals ranging from ten months to two years of age.

Age does not seem to be a barrier to infection, either in man or animals. Another fact, well worth remembering, is that not only the flesh of animals that have had severe attacks of trichinosis is dangerous to man, but the flesh of those animals but slightly infected, in which the symptoms may have been quite inappreciable, is quite full enough of the parasites to fatally infect a human being who may eat a usual meal of it, in a raw or insufficiently cooked condition.

TRICHINOSIS IN MAN.

Prior to 1860, forty-nine cases of trichinosis in man had been observed and reported by twenty-eight different observers. (For list see 111, p. 11.)

Probably the oldest known epidemic of trichinosis is that reported by Fehr, (80 A.) which occurred at Würtenberg, in 1675, in which two persons died.

From various sources I have gathered the following statistics of cases of trichinosis in man, reported in Europe and other foreign countries, viz.:

Year.	No. of Cases.	No. of Deaths.
1860	65	1
1861	84	1
1862	791	28
1863	472	42
1864	437	10
1865	675	124
1866	127	5
1867	65	12
1868	5	4
1869	*	*
1870	92	*
1871	6	. . .
1872	28	1
1873	137	2
1874	207	2
1876	3	1
1877	164	9
Total	3,044	231

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*Not reported.

A number of other cases and deaths in Europe, are reported elsewhere, but are not included in above list, because numbers are not definitely stated.

I find records of at least seven hundred and twenty-five other cases, with fifty-one deaths, in which dates are not given. There are also many reports of "*several*" and "*many*" cases, giving no date, and not stating number of deaths.

I find not less than 3,769 cases and 282 deaths. In many reports nothing is said as to whether there was a recovery. For tables embracing a portion of the above cases see 111, pp. 82–87. [See Addenda.]

CASES IN UNITED STATES.

"A German family living in Davenport, Iowa, was affected with trichinosis in 1856. The mother returned to Germany and was admitted to the Alton hospital in 1861, where the resident physician extracted a cancer of the breast, in which Dr. Timm found numerous encysted trichinæ." (Virch. Arch. Bd. XXX, p. 447.)

In 1864 the woman died and numerous living trichinæ in calcified cysts were found in her muscles. (111, p. 172.)

This appears to be the first case, of which there is any certain knowledge, having its origin in this country, though Dr. Bowditch found trichinæ in cadavers as early as 1841-2.

In 1864 there were nine cases reported in the city of New York, and one death. During the same year there were two cases in Cheektowaga, N. Y., both of which died. (Dr. Kronbein, Buf. Med. and Surg. Jour., June, 1864.) There were also at Marilla, N. Y., six cases, two resulting fatally. (Dr. Taylor, Am. Jour. Med. Sci., July-Sept, 1864.)

In 1865 seven cases were reported and others described, but no numbers given.

In 1866 there were nine cases at Lynn, Iowa, five of which terminated in death. (218.) There was also, during this year, an epidemic in Massachusetts, in which 17 per cent. of the victims died. (39, p. 133.)

In 1867 seven cases are reported, one in New York and six in Massachusetts, with one death. I find no record of any case in 1868. Two cases and one death are reported by Dr. Hunn, at Albany, N. Y., in 1869. (Trans. N. Y. State Med. Soc., 1869, p. 157.) In 1870 there were cases at Saxonville and Lowell, Mass., with one death; the number of cases not stated. For the same year, eight cases and three deaths are reported from Marengo, Dekalb county, Ill. (N. Y. Med. Jour., xi, 1870, p, 107.)

At Aurora, Ind., 1874, Dr. George Sutton reports ten cases, all from partaking of meat from the same hog. Three of the cases resulted fatally. (Trans. Ind. State Med. Soc., 1875, pp. 109–131.)

There were five cases reported in 1874, in Michigan, with two deaths. (Mich. Board Health Rep. 1875.)

An epidemic is reported in N. Y., 1878 by Joannes Chatin (39, p. 134), but he does not give his authority, nor state the number of persons affected.

In 1879 there were five cases and two deaths at Brooklyn, N. Y.; four cases at Martinville, N. J., and one death; five cases and three deaths at Milford, Ind.; reported by S. P. Gilpin. (Am. Pract'r, Sept., 1879, p. 135.)

In 1880 there were four cases at Newark, N. J. Other cases are reported at Bridgeport, Conn., Newark, N. J., Baltimore and New York, but no dates nor particulars given. For tabulated lists of most of above cases, see 111, p. 172–3.

Chatin, in the work already cited, reports two epidemics in 1880 at Milwaukee and Chicago, with two deaths; also an epidemic in N. Y., in which a young man died. His muscles were filled with trichinæ. (39 D' Annales d' Hygiene et de Médicine Légale, 1881, p. 377.) M. Chatin also reports two epidemics, one at Ft. Wayne, Ind., and one at Marshall Min., with many victims in 1882, and in speaking of these two epidemics, says: "In America scarcely a week passes (?) that the journals do not register some fact similar to the following:"

"THE POISONED FAMILY—THE AGONY ENDURED BY THE JAEGERS AT FT. WAYNE, IND.—[Official dispatch to the Evening Telegram.] FT. WAYNE, Feb. 9, 1882.—The News says with reference to the Jaeger family, five in number, who are suffering from trichinæ poisoning; they suffer intensly; no immediate danger is anticipated, but their ultimate recovery is doubtful. The girl, aged fifteen, and her sister, aged five, are in a very bad condition. No hopes are entertained of their recovery. The balance may survive. The oldest child was working in the country and came home to wait on the family, and eat once of the diseased meat. She has a very mild form of trichinosis."

The same author quotes, as follows, from a Minnesota paper:

"MARSHALL, MINN., Jan. 26, 1882.—Great excitement has been caused here by trichinæ poisoning from eating raw ham. Fifteen prominent citizens are afflicted and three have died." (39, p. 141.)

Dr. J. W. Edwards, of Mendota, Illinois, reports six cases of trichinosis, caused by eating pork not thoroughly cooked, four of which terminated fatally. (Am. Microscopical Monthly Journal, March, 1881, No. 59.)*

M. Chatin, in the work cited, gives a list of ninety-one epidemics, most of them in Europe, during a period of twenty-three years. Among them he reports an epidemic at Dunkirk, U. S., in 1882, not included in above list, but no details are given.

There were three epidemics of trichinosis in Illinois in 1884—one at Gardner, one at Woodburn, and one at Bloomington. The number of cases are not reported, but the quarterly meeting of the Illinois State Board of Health, last spring, reported three deaths. ("The Microscope," April, 1884, p. 92.)

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*Since writing the above, two deaths from trichinosis, in 1884, and one, January 4, 1885, are reported at Bloomington, Illinois, and several other cases. (Indianapolis Journal, January 13, 1885.)

In the latter part of 1883 quite a severe epidemic of trichinosis occurred in Ermsleben, a village in Saxony, in which over two hundred persons were affected, including all the members of one hundred and thirty-four families, except fifty' and of whom eighteen died. (La Gazette Med. de Paris and The Microscope, January, 1884, p. 22.)

In addition to the cases above reported, occurring in Europe, M. Chatin reports for 1878 to 1882 eighteen additional epidemics; among them, one of one hundred and fifty cases; another of one hundred and fifty to two hundred cases, and many deaths, though the number is not stated. (39, pp. 134–140.)

The same author also gives a list of seventeen epidemics at various points in Europe, prior to 1878, none of which are included in any of the above lists. (39, pp. 130–134.) He also reports an epidemic in 1880, which is also reported in Virchow's Archives, vol. 83, p. 553, at El Huleh, on the Jordan, in which two hundred and sixty-two persons contracted the disease, from eating of the flesh of a wild hog, which had been shot in the swamps adjoining the village. In this epidemic one hundred and twenty-four males and one hundred and three females and thirty-five children were affected. Of these, three males and three females died. This is the first case reported from the Orient. (39, p. 139.) [See Addenda.]

The foregoing lists are doubtless very imperfect, and probably embrace only a few of the cases occurring in Europe, as well as in this country. No doubt a great many cases of trichinosis occur which are treated as cases of diarrhea, dysentery, gastric enteritis, typhoid fever, etc., the symptoms of these diseases often having much in common with those of trichinosis.

Dr. Glazier collected statistics of trichinæ found in the human cadaver, in numerous medical colleges of our country, and gives thirty-six cases in which trichinæ were found. (111.) He also received quite a number of reports showing that trichinæ are frequently found in cadavers, but no record of them was kept. In most autopsies no examinations are made for trichinæ.

Delpeche says: "Wagner assured us that he had met trichinosed corpses in the proportion of four to six per hundred." (Leuckart.)

"In many cities of Germany, Dresden, Berlin, etc., the number of trichinosed corpses is as high as three per cent."

In nearly all the large cities of Europe, in which examinations for trichinæ have been made, in the dissecting-room, they have been found in from one to six per cent. of the corpses examined, if we may judge from the vague reports we have upon that subject.

Taking the above reports, where numbers are given, we have a total of more than one hundred and nine cases in the United States, with a total of forty-one deaths, but the actual number of cases in our country is probably twice as great. Many cases are probably never reported, and, when reported, the reports are so scattered that it is almost impossible to collect them.

The fact that diarrheal, dysenteric and choleraic symptoms are so uniformly present in all severe cases of trichinosis, especially in its earlier stages, and the fact that so many unexplained epidemics of the various forms of diarrhea occur, especially among the poor and foreign residents of our large cities, who either eat raw pork or are careless about its thorough cooking, furnishes sufficient grounds for a grave suspicion that many of these epidemics are due to trichinosis.

MISTAKEN FOR OTHER DISEASES.

Trichinosis has often been mistaken for other diseases, such as typhus fever, typhoid fever, gout, influenza, rheumatism, œdema of the muscles, gastro-rheumatic fever, catarrh, "sweating fever," "acrodynia," cholera, diarrhea, and dysentery. Such mistakes have been clearly demonstrated in many cases. (Consult 230, 128, 243, 143, 289, 59A, 259, 196, 1A, 195A, 142, 103, 204 A, 220.)

SYMPTOMS.

The symptoms and effects produced by trichinæ in the human system may be divided into two classes, muscular and intestinal, according to the locality of the parasite at the time of the occurrence of the symptoms.

Food containing larval trichinæ, taken into the stomach, is acted upon by the gastric and other fluids so as to dissolve the cysts containing the worms and thereby setting them free, and, as elsewhere shown, these trichinæ, thus set free, rapidly develop and become sexually perfect within about two days after they enter the stomach. The females, soon thereafter, give birth to large numbers of embryo trichinæ, which being set free in the intestines produce the intestinal symptoms, probably assisted by the adults. These minute embryos exist in vast numbers. Cobbold estimates that the ingestion of one pound of trichinous flesh will give rise to as many as four hundred million young trichinæ. Leuckart thinks the number would be greater.

The symptoms and effects will vary with the number of the trichinæ received into the stomach, the susceptibility of the individual and the period elapsing prior to the onset of the disease. (244.) There may be many small ingestions before any serious difficulty may be experienced, for trichinosis is preëminently a cumulative disease, each successive ingestion, however long apart, adding to those already in the system, and many cases, owing to these successive small ingestions, will be slow in their progress and may be classed as insidious, or masked cases, producing but little alarm at the time.

"Those suffering from the insidious form may be able to walk about, but feel tired and exhausted; they may have a good appetite, pulse be normal, or nearly so, the evacuations normal, or but little changed;" the sleep may be but little disturbed, but such affected person will experience drawing or lancinating pains here and there, especially in the nape of the neck and extremities, with or without rigidity of the deeper muscles. "They are neither sick nor well, yet feel something of which they can give no account."

If there be no fresh invasions the patient soon gets nearly well; but if there be new invasions a severer form of the disease will be experienced. In many mild cases there will be nearly all the symptoms of chronic rheumatism.

In cases where the invasions have been large the symptoms will be much more severe.

"From a few hours to a few days after the ingestion of the trichinous flesh, the patient is seized with symptoms of indigestion; complains of nausea, cardialgia, belching, diminished appetite, the tongue is coated, there is a fœtid breath, vomiting, or eructations, a feeling of general weakness and prostration and utter exhaustion; there are flashes of heat, rigors, fullness of the frontal region, vertigo, lancinating and flying pains in a few groups of muscles, particularly in the nape of the neck and flexors of the extremities."

"After two or three days there appears a choleraic or diarrheaic discharge from the bowels. The vomited matter is first slimy, then bilious. The stools, at first brownish and streaked, take on the clay-like character of many typhus stools. Severe neuralgic pain is almost always present in the abdomen, and pain is felt in the arms and legs and sometimes in the intestines." (220 and 111.)

"In the severest cases the patient may suddenly die at this stage of the disease with all the appearances of cholera, or from extreme exhaustion." Those who do not vomit now and then, become by degrees excessively debilitated. (111.)

A common complaint is that of feeling so tired. (259, 142, 230, and others.)

In some cases, probably in most, there are headache, pain, soreness, swelling of the lips and tongue, and often the earlier symptoms are so severe as to cause a strong suspicion of poisoning to be entertained.

The foregoing symptoms last about eight days. The second stage of the disease usually commences about the ninth or tenth day. The most constant and distinguishing symptoms of the second stage are œdema, swelling, and profuse perspiration; the skin is covered with sweat which is acid, persistent, abundant and often of a nauseating order. (142, p. 74.) The eye-lids, lips and other parts of the face swell more or less; the pupils may be dilated, and there is sometimes an intolerance of light. (220.) The muscles of the eye are often among the earliest to be attacked by the trichina, which probably accounts for the diminished accommodation and fixedness of the eye in many cases. "Pain in the orbital muscles, often occurring in the fifth or sixth week, especially in the morning, is present in all severe cases." (111.)

The fever increases suddenly (142); the pulse runs from 80 to 120 per minute, or more; great thirst and a feeling of intense heat afflicts the patient; "the tongue is furred, yellowish white, or covered with a black, sooty, clammy coating, soon loosing all epithelium, becomes of a uniform, dark brownish red." (111.) "Suddenly, generally in the night, there occurs extreme dyspnœa (difficulty of breathing), often lasting for several hours, and sometimes recurring daily for weeks; sometimes the diaphragm sinks down and remains in a state of tetanic rigidity." (111, p. 98.)

The mind is usually clear to the last, but "there is a total indifference to surroundings, but great fear of death." (111.) There is sleeplessness in adults, not in children; colic and mesenteric neuralgia; hyperæsthesia of the skin; sometimes a feeling as if insects were crawling over the person (formication); occasionally swelling of the lower limbs; hearing is often impaired (181); the muscles of the neck, loins and limbs become stiff and tender; motion is very painful; "the elbows are bent and the knees are drawn up; the patient rests best upon his back; the tongue becomes stiff; there is a difficulty in swallowing; there is hoarseness, asthmatic cough and arrested stools. In short, all the appearances of a fatal case of typhus fever are presented." Pressure upon the surface leaves no marks, or if any, they are quickly effaced. The skin changes frequently in temperature, and often breaks out in perspiration.

In a very large number of cases there are lung and pleural complications, verified in many cases by post-mortem examinations. "The muscles of the larynx are notoriously infiltrated with trichinæ." There is often extreme bronchial catarrh and inflammatory processes of the lung and pleura. Of seven fatal cases examined by Ruprecht, pneumonia existed in six. Virchow says: "In a few cases I have examined the bodies of those said to have died of consumption, and found, besides marked lung disease, extensive trichinization and extreme emaciation." Looking at these facts, may we not justly suspicion that many cases of chronic lung diseases have had their origin in slight attacks of trichinosis?

Many other symptoms are found in different cases, and may be studied in medical and other works, such as those of Kratz, Leuckart, Chatin, Meisner, Kestner, Glazier, and others referred to in the bibliography. I also take pleasure in calling special attention to the article of Dr. George Sutton, of Indiana, on this subject, in "Transactions of Indiana State Medical Society," 1875, pp. 109–131.

In cases of recovery there is a gradual subsidence of the more intense symptoms, but perfect recovery is probably impossible. The parasites become encysted and permanent guests of their hosts, and in time their cysts become more or less calcified, as elsewhere shown, so that the person must ever carry, scattered thickly through all the voluntary muscles, a large number of these abnormal bodies, which can not do less than maintain a low grade of irritation, and there will remain constantly recurring slight pains, soreness, weariness and lassitude. In some cases there will be continued emaciation, but the tendency will be toward obesity from the fatty degeneration incident to the presence of the cysts and the contained trichinæ for a long period of time. The trichina comes to stay with us during life, and, even if it dies, it leaves us as a legacy, its old, calcified, stony dwelling. If it once finds a lodgment in our muscles, there is no remedy, nor means for expelling it. It lives on, coiled up in our muscles, it may be from ten to twenty years, or even longer. "As long as the trichina remains in the muscle and occupies his cyst his condition remains unchanged." (168, sec. 546.) In most cases where trichinæ have been found encysted, they were alive. The only time when remedies can expell trichinæ from the human body, is while they remain in the stomach and intestines. "We have heard of cases of living trichinæ where the patient had been attacked eight, thirteen and a half, and even eighteen years previously." (163, Note p. 62.) Damman reports encysted living trichinæ eleven years and three months after infection. (63.)

Trichinæ also retain their vitality a considerable length of time after the flesh containing them becomes putrid. Dr. Sutton says: "A week after Mrs. Beuter had been buried, the flesh, when examined with the microscope, was found to be filled with trichinæ, most of which, when a strong light was thrown upon them, showed evidences of motion." (259, p. 121.)

The Vienna committee of 1867, say: "After remaining for months in putrid flesh they did not lose their vitality." (286, A.) Goujon infected other animals with trichinous flesh, eighty to one hundred days after it became putrid. (108.) Klopsch reports trichinæ alive after twenty-five years. I think it probable that in most cases encysted trichinæ perish in the course of ten to fifteen years, when the cysts have become thoroughly calcified. Sufficient experiments have not been made to demonstrate with any degree of certainty, the ultimate limit of their vitality. I have kept trichinous pork in water forty days and then examined it under the microscope, and found the encysted trichinæ alive and apparently unharmed by the prolonged maceration. This was, however, in the winter time, in my office, and there was not a complete decomposition of the flesh. It was kept in a bottle filled with water, at the usual temperature of the office.

TREATMENT—REMEDIES.

"At the present time the treatment of trichinosis does not afford a hopeful outlook." (Heller, 116, p. 642.)

"The therapeutics of trichinosis deserves no great praise. Means by which the muscle or intestinal trichinæ can be destroyed, have not, after the most careful search, been found." (Falck.)

Delpech says (68, p. 102.): "It may be said that there are no medical preventatives which protect against trichinosis, when trichinous meat has been eaten. Anything thus recommended is based upon charlatinism or personal illusion. It may be that in a great many cases such and such a remedy might apparently have prevented the development of the disease, or rendered it insignificant. In such cases the meat has contained but few trichinæ, or the subject had a strong constitution. If there is a substance that will kill the parasites in the stomach or intestines, it has not yet been found. If such an agent can be found, of which there can be no doubt, it certainly will not be an ordinary remedy, as wine or brandy, spices, etc., but a true medical substance. Such a remedy can never be used as a prophylactic."

It is agreed by all authorities of any considerable experience that there is no certain remedy for this terrible disease, in any of its phases. The only time at which medication can be used with any hope of success, is while the parasites and their embryos are in the stomach and intestines.

Many remedies have been suggested which have apparently been efficacious in some cases, but have proved wholly useless in others. It is very probable that where they have appeared to be of any value, that the attack was comparatively light; or that the remedy was administered at such time as to expel the trichinæ from the bowels.

The trichina has great resisting powers, not only against heat and cold, but also against most insecticides, germicides, etc.

Dr. Geo. T. Angell, of Boston, recommends the use of sulphur. (39, p. 144, note.)

Several persons recommend alcohol during the first few hours of the invasion; others condemn its use.

Benzine, picronitrate of potassa and of soda, glycerine, sulphocarbolate of soda, calomel and mercury in its various forms, morphia and ergotine, salicylic acid, iron, heat, cold and electricity, turpentine, salts of lime, santonine, and a great number of drugs and chemicals have been recommended by some and condemned by others.

Trichinosis is, therefore, a disease to be most carefully guarded against by the observance of proper sanitation and hygiene, rather than cured by remedial agents. Prevention is the only safety.

INSPECTION.

Inspection of our hog meats is a necessity for several reasons. It is necessary in order to refute false and interested representations made by certain foreign inspectors who represent American pork to be worse infected than it is in fact. For example:—A published document from the Minister of the Interior in Neuchatel asserts that the microscope had shown more *than half of the American hams and canned meats to be infected.* This assertion nearly destroyed the trade in American meats in that canton, where it had before been quite large.

Many cases of exaggeration and misrepresentation might be quoted to show how our trade is injured by false reports, which an inspection at home, before shipment, would furnish ready evidence to contradict. But there is misrepresentation on both sides of the question. It is astounding that public men will deliberately publish to the world that "there is no established case of American hams being infected with trichinæ." (Fleming's Vet. Jour., June, 1881, p. 462.) The evidence, unfortunately, is overwhelming to the contrary.

John M. Wilson, our Consul at Hamburg, June 3, 1879, writes: "A rigid and thorough microscopic inspection is now made in all parts of Germany by government inspectors of hams, pork, etc., exposed or intended for sale, and if in the least infected the same is confiscated." He also calls the attention of our merchants and business men to the importance and the necessity of sending none but the best, and to be certain that the same is not infected, and says, that a thorough inspection of our meats before shipping would "in a great measure *enhance* the *value* of our products, *increase* our *trade* and *do away with* the general *distrust* now prevailing in Europe against American meats." (111.)

Edward M. Smith, U. S. Consul at Manheim, says, that for want of inspection and on account of trichinæ in our meats, "German pork sells here for eighty pfgs. to one hundred and thirty marks.; American pork sells for thirty pfgs. to sixty-five marks." This discrimination was made against American pork because two and one-half per cent. of the pork shipped there was infected with trichinæ. Certainly home inspection, that would have thrown out this two and one-half per cent. of infected meats, would have resulted in a very handsome profit.

Every exclusion of American pork from foreign markets, every discrimination against American meats, is a solid money argument in favor of home inspection and such regulations as shall prevent the exportation of diseased meats. If one or two per cent. of our exported meats be diseased it lowers the price of all and involves all in a common suspicion, and often wholly prevents its sale, producing heavy losses.

Mr. Mason, our Consul at Basle, says, in substance, that the foreign trade in salted meats can never be fully restored without establishing in this country a system of official inspection which shall carry with it the weight of State or Federal authority. (124, p. 161.)

Inspection is a necessity to prevent the use of diseased meats among our own people, and to prevent infection with trichinæ, when such meats are used raw, or insufficiently cooked. There can be no assurance that our pork, in the multitudinous forms in which it is presented to us, is always sufficiently cooked to destroy all the parasites, at least not while cooks remain fallible.

If pork be cooked, but underdone, there is danger of infection. "So that cooking is no guaranty that the trichinæ are all dead" Falck (100, p. 520) says: "The best way is not to eat pork; but if you must eat it, do not eat raw pork."

If meats be thoroughly cooked to the bone, all the trichinæ it may contain will be killed, and trichinosis can not result from its use.

As has been shown elsewhere, trichinæ in the hog produce diarrhea, fever and other disturbances characteristic of disease. The inflammation continues during encystment, and for a long time afterwards, gradually diminishing. It is thought by some that the cysts contain not only the worm, or larval trichina, but also a certain specific poison, the product of the pathological changes incident to the presence of the parasite. Looking at the matter in the most favorable light possible, we must allow that wherever trichinæ exist in the hog, it is a diseased animal and not in perfect health. Every cyst is as much an abnormal formation as a cancer, tumor or other malformation in the animal system, though quite small.

Are such meats healthy, even though the worms it contains be killed by heat? Is it prudent, or in accord with an enlightened taste to use such food under any circumstances, when it is so easy to avoid its use? The ultimate effects of such food have not been determined, but surely the cultured mind and taste will rebel against partaking of the flesh of animals thus diseased.

It has been asserted that thorough salting of meats will kill trichinæ, but this is a mistake. It may hasten their death somewhat, but it is certain that they will live in thoroughly salted meats several years at least. Would a thoroughly salted animal, full of minute tumors and cancerous formations, be rendered palatable and desirable food through the saving influence of salt? It has been demonstrated by experiment that when trichinous flesh has been salted with all the salt it could be made to take, and kept buried in salt for more than a year, the parasite still remained alive and capable of developing sexually, propagating its species, and of producing infection in other animals. (39, pp. 184 to 190.)

Smoking is, also, ineffectual to kill them. Thoroughly smoked, salted and dried meats containing the parasite, have, when fed to animals, produced infection quite as readily as fresh meats. The parasite, when encysted, is in a dormant larval state and does not devour the tissues in which it is entombed. It lies there, coiled up, motionless and apparently lifeless, awaiting the time when it shall enter the stomach of some animal suitable to its development, and there awaken into a new and perfect life. This fact has led some into error, and they have imagined that because they see no motion and no signs of life in the encysted worm, that, therefore, it is dead.

In the *Scientific American*, as quoted by "The Microscope," August, 1883, vol. III, p. 124, John Wilson, Consul at Brussels, is quoted as follows: "I have myself been present when officially appointed microscopists at some of the abattoirs of this country have been engaged in examining American pork for trichinæ, and I have been invited by these gentlemen to see for myself, through their microscopes, the peculiar cell and spiral coil of the animal; but on carefully examining them, I have only observed, blended with the tissue and minute salt crystals, the entombed animal, evidently as destitute of life as the structure in which it was embedded."

"It is claimed by most trichinic observers that the process of generation and birth of this little animal invariably takes place in the stomach and intestinal canal, and that within a few days from its birth it has so matured as to penetrate the walls of the intestines and rapidly make its way through the various intervening structures to the remote muscular tissue, etc. * * * Of this theory of the life and movements of this little worm I can only say that it involves an almost unparalleled exception to the law generally regarded as determining animal life. * * * The law governing parasitic existence in living tissue usually involves the speedy death of the parasite after the pabulum upon which it feeds has passed from under the domain of vital force, etc."

And then he adds that he has scarcely a doubt but that salt kills the trichinæ, and therefore concludes that foreign governments are at fault for excluding our pork.

The Consul may be a very intelligent man, but certainly is not versed in the life history of the trichina, nor acquainted with the many observations and experiments in this direction, and shows an ignorance on the subject that is unfortunate, as his position gives him the weight of authority. The larval trichina is no more killed by the death of its host than is the pupa of the moth or butterfly killed by the fall and decay of the leaves of the tree upon which it may have spun and fastened its cocoon; nor does it devour its host, as food, in this dormant state, any more than the pupa of the butterfly devours the tree upon which its silken cradle is fastened. The several steps of the life history in the progress from the larval trichina to the perfect sexual worm, the fecundation of the ovules, their development, the birth of the young embryos, their migration to the muscular tissue, their encystment therein, their long continued vitality, and their power, after years of this entombed state, to reproduce the cycle of their existence is not theory, but demonstrated fact.

Leuckart, who has made many examinations, and is considered good authority upon this subject, says (163, p. 91): "It has been clearly demonstrated that trichinæ possess a very unusual power of resistance. Not only may they remain alive in their cyst for many years, and during putrefaction of the meat containing them, but they show a high state of indifference to the effects of changes of temperature."

The use of infected and diseased meats can only be guarded against by thorough microscopic examination of all meats offered for sale, as well as that provided for private use. An ordinarily intelligent person can readily learn to detect the presence of the encysted trichinæ within a few hours. A microscope suitable for the purpose can be bought for $20 to $30, or the trichinoscope of "The Bausch & Lomb Optical Co.," of Rochester, N. Y., costing about three dollars, will show the encysted parasites quite readily. Of course, a good microscope is better and safest. The discovery of fresh invasions, while the parasite is in its embryonic form, will require more skill and better instruments. A power of forty diameters is quite sufficient for the detection of the encysted worm, but a much higher power will be required for a thorough examination and study of the parasite in all of its varied forms.

PREVENTION OF INFECTION.

"Trichinæ belong to that dangerous class of parasites which always increase in numbers, and thus afford increasing dangers, unless all possible means are used against them." (Gerlach.)

"The microscopical examination of hogs, after killing, in connection with other means of protection, is always a necessity, especially in all places where trichinæ have been previously found. The experience of ten years proves its usefulness, its security, and the possibility of its execution. * * * No measure for the protection of the public health can show a more brilliant success." (Gerlach, "Die Fleischkost," pp. 69, 70.) Professor Gerlach is high authority.

In order to prevent the dissemination and increase of trichinosis among our hogs, it is necessary for our people to know what trichinæ are, their life-history, modes of propagation and dissemination, and the centers of infection. It is the business of State and other Boards of Health, aided by proper legislative action, to furnish the people this information, and to secure to them proper protection. To ascertain where the centers of infection are, the extent and causes of infection, as far as possible, there should be a regular, systematic examination of every hog killed for sale in our markets, for export or for private use, and reports made thereof to the proper officers. Rats should be exterminated as far as possible, and examined as to their share in the work of infection. Hogs should be fattened as early in the season as practicable upon clover fields or in open, clean places, away from buildings and rat harbors. All animals dying among them should be at once removed, and in no case should hogs be allowed to feed upon dead animals of any kind. The purity of the water to which they have access should be guarded with the utmost care, and especially should the water be kept free from all dead animals. Under no circumstances should hogs be fed upon the offal of slaughtered animals, or upon animal food of any kind, nor should they be allowed access to human excreta. No drains should flow from houses and water closets into the enclosures where hogs are fed. Feeding should be so managed as to prevent the food being contaminated by the excreta of the animals. There should be frequent changes to clean places. Close, small and dirty pens and enclosures should be avoided. All hogs suffering from diarrhea, at any time, should be singly isolated from all the others, and the discharges examined for trichinæ.

All sick hogs should be thus isolated. Stalls, stables, pens, or other close quarters where hogs are kept, should be often and thoroughly cleansed.

By use of proper instruments, suspected living hogs may have bits of their muscles submitted to microscopical examination without doing the animal any serious harm. No infected hog should, under any circumstances, be used as human food. It may be used for other purposes, not quite so valuable, which will prevent a total loss.

Let every one understand and be governed by the fact that clean food, pure water, clean places for feeding, and the total prohibition of animal food to our pigs will give us healthy, non-infected pork. One trichinous hog may, and probably will, infect all of its companions, more or less, if fed with them any length of time.

There should be a rigid supervision of all slaughter-houses, and the washings and offal from such places should never be allowed to reach the water that hogs drink or the places where they feed. As has been stated elsewhere, trichinæ will remain alive in putrid flesh, and in flesh immersed in water a month or more, and still be capable of imparting infection.

Such rules as these, properly enforced, would, in all probability, soon rid our country of this dangerous parasite, or at least reduce the infection to a very low per cent.

ADDENDA.

Since writing the foregoing report a number of facts have come to my knowledge, which I embrace in this addenda.

Over forty additional cases of trichinosis in the United States have come to my knowledge, of which ten persons died, making total number of known cases in the United States 149, of which 51 died. Half of these additional cases are from Michigan.

In the first annual report of the Bureau of Animal Industry of the United States, 1884, Dr. Salmon, in an article entitled "Trichiniasis," gives an account of a number of these new cases. He also reports 3,331 hogs examined from August to December, 1883, at Chicago, by Dr. Detmers for the Department of Agriculture, of which 80, or 2.4 per cent. were infected. Of this number 1,126 were from various unknown regions of the West, of which 4.08 per cent. were infected; from Michigan 50, 4 infected; from Iowa 831, 19, or 2.27 per cent. infected; from Illinois 520, 7, or 1.35 per cent. infected; from Dakota 50, 1 infected; from Wisconsin 304, 2 infected; from Nebraska 350, 1 infected; from Minnesota 100, none infected. Examined at the laboratory of the Department at Washington 300, in 1884, of which 5, or 1.66 per cent. were infected. Examined by Drs. Osler and Clement, at Montreal, Canada, 1883, 1,000, of which 4 were infected.

The above are the only examinations of American hogs coming to my knowledge, and not given in my report. These do not materially change the estimates made before, but tend to confirm them. Adding the above to the total of American hogs examined in this country we have a total of 22,543, of which 2.85 per cent. were infected. Dr. Salmon, taking all home and foreign examinations, and counting foreign examinations of pieces each as a distinct hog, estimates a total examination of 298,782 hogs, of which 6,260, or 2.1 per cent. were infected. My estimates, counting two pieces as from one animal, somewhat reduces this per cent., but it is probable that the average per cent. will be found very near or quite 2 per cent. for the whole of the United States.

The United States commission of inquest upon the subject of trichinæ, etc. (236 B), appointed July 30, 1883, composed of Hon. Geo. B. Loring and others, estimate the infection at 2 per cent. I made my estimates before I had any knowledge of theirs, from statistics herein given.

This commission are represented by Dr. Santa, (236 B, p. 19,) as charging foreign inspectors, especially 18,581 German experts, as notoriously incompetent, and as furnished with poor instruments. Much unfairness and misrepresentation have been charged upon foreign experts and microscopical examiners of infected American pork, by many American writers, but the figures and facts given in this report show that a greater per cent. of infected animals have been found among the 22,543 hogs examined by American experts at home, than among the more than 275,000 American hogs examined by German, French, and other foreign experts; and if we take all foreign examinations of hogs from all quarters, amounting to nearly nine million head, the per cent. is still slightly below that found by our own experts among American hogs. These facts and results, I think, do not justify the criticisms made, but tend to show that the examinations, both at home and abroad, have been, usually, fair, honest and reliable, and have been honestly reported. Our own figures make a slightly worse showing for us than do those of foreigners. Probably, in some isolated cases gross misrepresentations have been made, and it is not at all improbable that some of the examinations have been made and reported, both at home and abroad, by very incompetent persons, using very poor instruments and appliances. But scientific men are usually very careful to give the exact truth in reporting observations as they appear to them.

During 1884 the "French Society of Hygiene" published a pamphlet, prepared by Dr. Prosper de Pietra Santa, General Secretary, entitled "Trichine et Trichinose aux Etats-unis," based upon a series of documents, official and private, from parties in this country; and, as I feel sure there is some misunderstanding, either on the part of those translating the letters into French or the writers, and that facts are not correctly stated, I take the liberty of giving parts of the correspondence, and the statements made, so that the truth may be known, which the importance and official character of the work, I think, clearly demands. That my translations, which are free, may be subject to the criticism of any one understanding the French, I give parts of the French text.

Through Dr. Santa, M. Colin D'Alfort requested samples of trichinous pork to be sent him from this country, in order to make a series of experiments upon animals. On March 6, 1884, Dr. Santa wrote to Dr. Billings, of Washington, G. P. Brown, editor of *Sanitary News*, of Chicago, and Howard Young, of Hartford, Conn., asking for such specimens.

Dr. Billings answered, March 25, 1884, that he could not procure the specimens at Washington, but wrote the Health Officer of Chicago asking him to supply the desired specimens.

G. P. Brown answered, March 24, 1884, "It is just now absolutely impossible to secure any specimens of pork infected with trichinæ." * * * "J'ajoute que la plus importante maison d'ici Faisant le Commerce des Viandes de porc (tueries, emballage pour l'exportation, preparations pour la consommation indigène), tient à son service un micrographe préposé à l'examen minutieux des viandes au moment de l' abatage et de l'embarqument. Cet employé m' assuré que, pendant ces six derniers mois, dans ses recherches journalières, il n'avait pas trouvé un seul exemple de trichine," which I render freely as follows: "I may add that the most important house here dealing in pork (killing, packing, exportation, preparations for home consumption) keeps in its service a microscopist charged with the minute examination of meats at the time of the killing and of the shipment. This employe has assured me that during the last six months, in his daily researches, he had not found a single example of trichinæ." (236B, p. 6.)

Dr. DeWolf wrote an answer to Dr. Billings, which was forwarded to Dr. Santa, and is given in the French, as follows, so far as it relates to the point under consideration: "Nous avons ici, dans la maison Armour, un employé préposé à la recherche de la trichine dans les viandes de porc (hunting) (chassant) for the parasite. Il y a deux ans, ses constatations de trichine étaient fréquentes (come plenty), mais dans ces derniers temps, il n' a pas recontré un seul echantillon (a simple specimen)." Which I translate as follows: "We have here, in the house of Armour, an employee charged with searching for trichinæ in pork. For two years his findings of trichinæ were frequent, but of late he has not met a single specimen." (p. 7.)

Upon receiving and examining the pamphlet of Dr. Santa, and the letters quoted above, I wrote Mr. G. P. Brown and Dr. DeWolf, sending a list of questions, with a request for an answer, with a view to getting material for my report. Mr. Brown answered very kindly as follows:

"CHICAGO, March 12, 1885.

"*T. B. Redding:*

"DEAR SIR—The delay in answering yours of February 17th, categorically, has been due to lack of time to attend to the investigation desired. Until within the past four months, at least for a year and a half, a specialist was employed at the packing house of Phil. Armour, the largest in the country, but as he was unable to find any evidences of trichinæ, at least to any extent worthy of attention, his services were discontinued, and no one is now employed for that purpose, either at Armour's or any other packing house in this city. The microscopist to whom I refer was Prof. P. B. Rose, formerly of Michigan University, Ann Arbor, Mich., who could be reached, probably, by addressing him there should you desire any further information. The information I give you was obtained from Mr. Cuthay, superintendent of Armour's establishment. Dr. Detmers, United States Government Inspector, made an examination for trichinæ four months ago. He examined 2,000 hogs from the loin to the bone. Out of this number one hog only was rejected for trichinæ; the miscroscopical instrument used not known. As already stated, no regular inspectors are now employed. The expense was not kept as a separate item, hence no figures could be given, other than you could estimate yourself. The examinations are made when the hog has been prepared for cutting up, either for packing or for the market. Different portions of the flesh are cut into slices, taken, pressed out and examined between two glasses, as in ordinary microscropical work. As trichinæ were not found, of course the information must necessarily be rather negative. Trusting this will be satisfactory, I am,

"Yours truly, G. P. BROWN."

I wrote Prof. Rose, at Ann Arbor, but received no answer. I also wrote Messrs. Armour & Co., asking questions to elicit full information, to be used in my report, and received the following answer:

"CHICAGO, March 14, 1885.

"*T. B. Redding, Esq., Newcastle, Ind.:*

"DEAR SIR—Replying to your mail favor, 13th inst., would say that you have been misinformed. We do not employ a 'microscopist,' and can not answer your several questions. Yours very truly,

"ARMOUR & CO. D."

I wrote them again, giving the substance of the letters of Mr. Brown and Dr. DeWolfe, as above quoted, and requested an answer to my former questions, to which I received the following reply:

"CHICAGO, March 17, 1885.

"DEAR SIR—We have your favor of the 16th inst., and its contents have our very careful attention. About a year ago there was a gentleman, Mr. H. Detmers by name, who was employed by the Commissioner of Agriculture, the Hon. G. B. Loring, to conduct some investigations here and elsewhere concerning the diseases of cattle, hogs and other animals. He visited our establishment several times, and we, of course, extended him every facility in our power, in order that he might make an intelligent report to the government. That report can doubtless be obtained by application to the proper authorities at Washington. We have never, ourselves, employed a chemist for that purpose, and consequently your information is entirely wrong. It doubtless arose, however, from the circumstances we have mentioned. We are unable to answer definitely the several questions you propound, although we are sure that the result of the investigations mentioned was that the percentage of trichinæ found was infinitesimal. We remain,

"Very respectfully yours,

"ARMOUR & CO."

In reply to my letter to Dr. DeWolf, he answered as follows:

"CHICAGO, March, 28, 1885.

"DEAR SIR—Your letter of 19th was received during my absence from the city, and has awaited my return for reply. Armour's house has always been selected as the point from which to obtain specimens for examination, from the fact that all varieties of hogs were found there and in great numbers.

"Examinations previous to 1883 showed about 8 per cent. of hogs infected, but subsequently an infected specimen was difficult to find. Our chemist, Dr. Paton, (not now with us) found no trichinæ in 1884, although he made daily examinations up to June of that year. Respectfully, yours,

"OSCAR C. DEWOLF."

In a subsequent letter, Dr. DeWolf referred me to Dr. Detmer's report, noticed elsewhere.

On the 30th of March, 1885, I wrote Dr. Paton requesting him to give me the number of hogs examined, methods, etc., but he declined to do so without a fee, and as the State Board had not supplied me with funds for that purpose, I could not comply with his request, and am without the desired information.

The work of Dr. Santa, above referred to, after giving the letters and other matter, contains a synopsis of a report of the following commission, appointed by the President of the United States July 30, 1883, viz: Geo. B. Loring, E. W. Blatchford, C. E. Chandler, F. D. Curtis and D. E. Salmon. From this synopsis, of that report, I make the following quotations and translations:

"Sanitary condition. Tous les fermiers Américains savent aujourd 'hui que les cochons sont en réalité les animaux les plus délicats de la ferme. Comme plus que tous les autres ils sont influencés par les changements brusques de température, on ne néglige rien pour leur assurer des abris convenables, des litières saines et sèches, une nouriture substantielle et de l'eau pure en abondance. Les plus grandes precautions sont aussi prises pour isoler les animaux maladies, et après le décés, pour brûler ou enterrer leur corps." pp. 13, 14.

Translated, as follows:

"All American farmers know, to-day, that hogs are in reality the most delicate animals of the farm, as more than all others they are influenced by sudden changes of temperature. They neglect nothing to assure them suitable shelter with healthy and dry litter, substantial food and pure water in abundance. The greatest precautions are also taken to isolate sick animals, and after death to burn or inter them."

"Les porcs Américains ont été examinés par des micrographes autorisés, étudiant avec soin chaque cas particulier, pendant qu' en Allemagne les 18,581 inspecteurs préposés à ces recherches étaient pour la plupart d'une, incompetence notoire et munis d'ailleurs d' instruments très défecteux." Which I translate as follows: "American hogs have been examined by authorized microscopists, studying with care each particular case, while that in Germany, the 18,581, inspectors charged with these researches, were, for the most part, of notorious incompetency, and were furnished with very defective instruments." (p. 19.)

In speaking of the hog cholera, the commission is represented as saying: "Ajoutons que l'inspection des viandes malades ou contaminées se fait avec trop de soins, sur toute l'étendue du territoire de l'Union, pour craindre un seul instant que l'on puisse impunnément porter sur les marchés, à l'usage de l'alimentation publique, des animaux morts à la suite de cette affection." Freely translated, as follows: "Let us add, that the inspection of diseased, or contaminated meats is made with too much care throughout the whole extent of the territory of the Union, to fear for a moment that one can, with impunity, put upon the markets for public use as food, animals dying in consequence of this affection." (p. 31.) Again: "Mais, dans notre conviction intime, la surveillance et les inspections qui sont actuellement établies dans les grandes maisons d'approvisionnement et d'exportation sont plus que suffisantes pour satisfaire les esprits les plus timorés et pour justifier la liberté du commerce (restore the trade)." Translated as follows: "But, in our inmost conviction, the surveillance and inspections which are already established in the great provision and exporting houses, are more than sufficient to satisfy the mind of the most timid, and to justify the liberty of commerce (to restore the trade.) (p. 32.) Again: "Après une étude et une enquète sérieuse sur toutes les circonstances afférentes aux conditions des porcs Américains depuis, l'heure de la naissance jusqu' au moment ou leur viande, convenablement preparée, est expédiée sur les ports étrangers, nous pouvons affirmer que nos porcs, à tous les points de vue (infection par des parasites, maladies spéciales, détérioration des produits après l'abatage) sont superieurs aux porcs de France, d'Al'emagne ou de toute autre contrée du globe." Translated: "After a serious study and enquiry into all the circumstances bearing upon the conditions of American hogs, from the hour of their birth to the time when their meat, suitably prepared, is sent to foreign ports, we can affirm that our hogs, in every point of view (infection by parasites, special diseases, deterioration of products after slaughtering,) are superior to the hogs of France, of Germany, or of any other country of the globe." (p. 33.)

I make one more quotation, from page 33, as follows: "Les recherches et examens microscopiques établissent clairement que la proportion pour cent des animaux infectés par la trichine est inférieure à la proportion que l'on trouve dans les autres pays Européens." Translated as follows; "Microscopical examinations and researches establish clearly that the proportion per hundred of the animals infected by trichinæ is inferior to the proportion found in European countries."

Did space permit I should make other quotations. I have not seen the original

English from which the above translations into French were made. The foregoing facts and statements have been given together, without comment, but it is very evident to any one who has read this report, or who makes enquiry, that there has been some misunderstanding as to some of the facts stated. All the gentlemen named are of the highest honor, and I could not think for a moment that any intentional misrepresentation would be made by them, or that they would purposely make a misstatement. The probability is that the letters have been imperfectly understood.

Messrs. Armour & Co.'s letters clearly show that no systematic examinations have been made at their establishment. The fact is that no pork establishment in America, doing a large business, has ever made regular inspections for trichinæ.

Dr. Detmer's reports show that he examined 3,331 head of hogs, and found eighty infected with trichinæ, while Mr. Brown's letter shows that only one out of 2,000 was rejected on account of the parasite.

As to the representations made by the Commission, as understood and given in Dr. Santa's pamphlet, I am very certain that the actual facts will not fully sustain them, and I think the representations intended to be made have been misunderstood. No such care of hogs is taken by the farmers of the West, as a general rule, as represented. Farmers are entirely too careless about burning and burying dead animals, and pay no attention, often, to isolation. Much improvement has, however, been made in this direction within the last few years, and it is to be earnestly hoped that the words of the Commission will soon be fully verified in every part of the land. Every effort in my power has been made to present the truth in regard to infection, and I believe this the true policy, and feel assured that proper inspection and care would soon greatly improve the reputation of our pork abroad, and at the same time add many millions of dollars to its value.

TRICHINÆ IN FROGS.

On the 2d of April, 1885, I received and examined a slide, prepared by Professor G. W. Worcester, Urbana, O., for the "American Postal Microscopical Club," containing a section of the stomach of a frog, stained with eosine and mounted in benzole balsam. The section contained, in the submucous tissue, what appeared to be a finely developed cyst with a trichina coiled up therein. The cyst was somewhat more rounded than usual, but very closely resembled the cyst of the trichina spiralis. The worm could with difficulty be seen so as to make out every part distinctly, and I am satisfied that it was not a true trichina spiralis, but some other nearly allied species.

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CHRONIC ALCOHOLISM.

BY WM. LOMAX, M. D., MARION, IND.

Alcoholic inebriety has a definite natural history. Its distinctive features are so well marked as to leave no doubt or difference of opinion in the minds of those who observe them. And the evil is so widespread in the civilized world as to permit no one to be ignorant of its prevalence and destructive power. If let loose to prey at will upon the unprotected interests of society it would prove a more unsparing destroyer than any other scourge in the long catalogue of human plagues.

There is no desolating evil which an intelligent and well-informed community would more sincerely deprecate; and none which a far-seeing jurisprudence would more anxiously provide against and avert. In every age of the world it has been recognized as a blighting scourge. Philanthropists have conscientiously resisted its ravages upon society in every conceivable manner. Argument, moral suasion, sympathy, kindness, forbearance, and every variety of moral influence have been exhausted upon it. Crusades, prayers, tears, mobs of pious ladies spurred to supramasculine bravery have boomed above the law, battered down doors, fearlessly entered saloons and boldly flooded streets and sidewalks with their death-dealing stores, hoping thereby in some degree to mitigate the direful work committed upon the community. Generous liberality has provided homes, retreats, associations for encouraging the unfortunate victims of the vice to assert their self-control and rise from the debauchery of drunken degradation to the respectability of sober lives. Laws have been enacted for the suppression of the vice by imposing burdens upon the sale of intoxicants in the form of taxes, and prescribing penalties for certain offenses connected with the traffic. But so far all reformatory measures have signally failed to restore primitive sobriety in the community. And, it is said by persons having an opportunity of speaking advisedly in the matter, that drunkenness is as rife to-day as it has ever been, if not actually on the increase. The failure of earnest and studied effort to remedy the evil shows, at least, the stern and difficult nature of the problem. All agree that withholding the beverage, or abstaining from its use, would inevitably secure the desired object. This is a self-evident proposition. Discouraged by the results of former efforts, and distrusting all methods in which uncertainty is involved, the leading temperance workers adopted prohibition as an essential requirement to remedy this social calamity.

In accordance with this idea prohibition was made the bond of union for concerted political action in the last presidential election. Methods were matured, and the subject thrust upon the attention of the country with a zeal commendable for its fervency and lofty purposes. An organization was effected, through which its advocates could work in concert. A large force of clergymen volunteered in the service, and gave it their conscientious support. The evils of intemperance were portrayed in glowing, sensational rhetoric. Public morals and the public conscience were appealed to with uncommon earnestness and eloquence. But the result was not very encouraging to the fond hopes of true temperance workers. The more sanguine, however, profess not to be discouraged, but anticipate better results in another campaign. By becoming a balance of power in the great party struggles for place and spoils they hope to get their cause into the legislative halls and secure temperance as a political rider. Being leagued with corruptions that have come to be tolerated in politics would make a policy coming out of such diplomacy liable to be much more unsatisfactory in results than if the whole subject were taken out of politics and submitted to the unbiased, moral judgment of the people.

Prohibition appears still to be the policy of the more active and ruling element of the temperance party. In regard to the import of the term *prohibition*, the password of the party, there seems to be some ambiguity, if not discrepancy, associated with its meaning, or at least with the scope and details of its contemplated operation in the minds of those identifying themselves with the movement. Some are so ultra in their opposition to alcohol as to allow this one feeling to dominate the entire man. They have nursed their all-absorbing topic into a blind fanaticism which dogmatically asserts that alcohol is an unmitigated curse, without any redeeming qualities—that it has no useful properties which other remedies and substances do not possess in an equal degree without the liability to produce the grave consequences of drunkenness. They adopt the strict, literal signification of the term and apply it to the manufacture. Such radical proceeding would effectually wipe out all subsequent effects, uses and relations of the drug in every sense, and summarily close its history. The theory is based on an implied assumption that contact with the drug, as a rule, will corrupt the person, and therefore all should be concluded corruptible and subject to the humiliating inhibitory regulations required only for the drunkard. A thousand innocent persons should be made to suffer under this theory, rather than a single scalawag should be whipt of justice—a remarkable doctrine to promulgate in a Christian civilization, a libel upon the morals of the race. This teaching is refuted by facts staring us in the face every day. The proprietors of saloons are rarely drunkards. Their occupation as retailers require the constant handling of the dangerous thing, and yet there is a remarkable immunity from inebriety among them. Those engaged in its distillation, as well as those employed in the various arts, manufactures, professions and sciences requiring its use are rarely demoralized by handling it. The intelligence of this enlightened age will not forego the benefits of an agent of such diversified and in many instances indispensable usefulness because a few weak-minded and demoralized persons have not the moral power to resist the temptation to use it improperly. Prohibition is not the true spirit of moral improvement in the disposition of an agent of wide and varied usefulness. The interests of the human family prompt to elevation of moral sentiment, the culture and exercise of the noblest elements of our nature. High moral culture should have scope for labor and exercise to the extent of its capabilities in the realm of useful work. To restrict capacities for a broad field of usefulness to the circumscribed regime suited to the pensioners of public charities would be a ruling unjust in itself and disastrous to the material improvement of the world; a compound of madness and superlative folly. The more considerate workers in this benevolent cause, those of the better mental equilibrium, believe that the traffic in the drug might be so carefully guarded as to prevent the injurious results growing out of its promiscuous sale and use, and yet preserve to society all the benefits of its legitimate applications and uses. This proposition presents itself as the more feasible one, and should form the basis of any law the wisdom of the Legislature may devise upon the subject. It is a foregone certainty as far as human sagacity can penetrate coming events and history, that alcohol will continue to be made and used for legitimate purposes by the wise and good, in whose hands it is safe and harmless, throwing the vicious phase of the subject into the hands of the law-making authorities to regulate by the application of such wholesome statutes as may be best suited to protect the weak and reform the vicious from the suicidal and murderous tendency of their own inherent depravity.

Drunkenness is a disease, a death-dealing disease, from which statisticians report 60,000 deaths annually in the United States. This appalling mortality occurs chiefly at the end of a chronic struggle in which a wide wreck of hopes, happiness and fortunes drift upon its horrid wake. Its incipiency is a thoughtless, voluntary act, rather an indiscretion than a crime.

The first effect of alcoholic beverage is that of an agreeable stimulus, producing a cheerful flow of feeling, hilarity of mind, elasticity of muscles, running into a merry, jolly play of wit and humor, very enjoyable to the vivacity of youth, and not despised by the clever old fellows of riper years. Hence, it is admirably suited to give animation to a little assemblage of friends on convivial occasions. These little social revelries are fascinating to the youthful mind, and were their influence to go no further, no serious objection could be made to them. But beneath their fun and frolic there lurks a dangerous gorge into which the unsuspecting children of sport and gayety are liable to be drawn and devoured.

Repetitions of these libations insensibly form a habit. Those who have been betrayed and taken in by them had no idea of becoming drunkards. But while thoughtlessly, and fearlessly, and sparingly, as they thought, indulging in their potations, relying on the potency of their self-control for protection, the fell monster insidiously insinuates and fastens itself upon them.

A habit called dipsomania, or drunkard's thirst, is formed. They are now under the complete control of a dominating propensity which they have not the moral power to resist. It exists as a condition of the vital organism. The condition is an abnormal one, it is true; one that was born of vicious habits and indulgences; but it is nevertheless a force in the composition of the individual of as great power over his will as any of the normal promptings of nature. He is utterly powerless to resist it. The will is captured and perverted. It is made subservient to the demands of his insatiable thirst for stimulants. The will is the creature of an internal feeling or conscious demand for gratification.

The assent and endorsement of the mind to exercise the faculties of the individual in procuring the gratification represents the will power in the premises. Moral considerations, social and personal well-being may, and often do interpose objections and raise a war in his members; but the overpowering propensity rules and ruins.

The depredation upon the mental constitution not only unfits the man for the duties of citizenship and the more sacred cares and concerns of the domestic relations, but inspires him with a viciousness of disposition, at times jeopardizing the safety of his family and the public. His imagination is perverted, suspicions aroused, and his manner and general character have become those of the drunken sot. The susceptibilities of the nervous system have become deranged and changed in function, if not in structure. There is sluggishness of the intellect and much of the time semi-insanity, with now and then intermittent paroxysms of furious mania.

The senses become so perverted as to create myriads of horrid images about the pitiable deluded victim, which frighten him into tremors, spasms, and sometimes sudden death.

In the progress of this disease various intercurrent organic affections are liable to be developed—of the liver, kidneys, heart, stomach, etc., giving the accommodating physician opportunity to write some of these secondary affections in his death report, especially when a life-policy may be involved. Drunkenness is a disease of both mind and body. It affects its subjects in varying degrees, from the slightest departure from the round type of health to complete paralysis and hopeless idiocy. The drunkard is lost to his family, to himself, and to community. He is not only a loss, but a positive burden and scourge in all these relations. He corrupts the blood of his offspring by entailing upon their constitutions hereditary tendencies to inebriety, insanity, epilepsy and various other nervous and constitutional defects.

In the initial stage this disease appears in the form of a simple, social vice, which might be easily abandoned before the habit is formed. After this the case is very different. The inebriate has lost his power to resist the temptation. This does not seem to be appreciated by the sober portion of community. Voluntarily taking the drug seems to invest the act with the idea of crime in popular estimation, and the man is treated as if he had the known will power to break off from the habit of drinking, when, in fact, he has no such power. I think this class of unfortunate men have not received the benefits of public commisseration their helpless condition deserves. They are evidently the victims of disease which the legislative and judiciary departments should recognize, not in a vindictive or punitive, but in a liberal and restorative spirit. It has been held by jurists that intoxication should not abate the punishment of crime, but if considered at all should intensify it.

That a man who would voluntarily put himself into a mental state by intoxicating beverages, in which his liability to commit crime is greater, should be punished as severely as if he had premeditated the act, and wilfully prepared himself for it by taking the stimulant to nerve himself for the horrid deed, is true. But this is rarely the case with drunkards. When they commit the graver crimes, it is almost always when under the influence of high excitement in a state of intoxication, and under circumstances showing there was no premeditation of the crime. In case of the criminal forethought, on the contrary, he has resolved upon the deed previously, and appeals to artificial stimulants to insure its performance. It is taken as an element of criminal success, dictated by his reason to insure greater certainty of purpose. And again, in case of detection, he may plead unsoundness of mind from intoxication as a means of escaping the operation of justice. In this case there is neither insanity nor drunkenness. It only exemplifies a dark, revengeful malice, connected with a high order of intellect employed in executing its hellish design. The alcohol is taken only to stimulate a disregard of the natural impulses of the human heart, which might weaken his energy and defeat his purpose to commit the crime. Such persons know how far to use the drug to serve their purposes, and then they cease. These persons are never drunkards. The drunkard has not the craft to deserve the penalties due to such crimes.

There are but few, if any, chronic inebriates who have not made earnest efforts to reform their lives. They are by no means ignorant of the fearful direction in which they are drifting, and put forth every effort they are capable of making to escape the fearful gulf into which it must unavoidably plunge them. They resolve and vow, over and over, never again to swallow a drop of intoxicating fluid. But it is not long before an exacerbation of dipsomania attacks and overcomes them, and they are found with their cups again. When exhausted by the debauch, and they are languid, sour, and relaxed, with neusea and headache and all the train of bad feelings that follow what drunkards call a "good time," unbidden thoughts bring to remembrance broken vows and promises, lighting a devouring remorse upon their troubled consciences, literally overwhelming the pitiable creatures in gloom and despondency. Yet the noble instincts of the human soul are not wholly obliterated. When the storm of bacchanalian carousals subsides reason, conscience, respect for an upright life, with a desire to enjoy its reward, spontaneously react.

Faithful friends and temperance philanthropists persuade, and they resolve to make another effort to reform. To environ the resolution with every possible aid, an oath is taken to keep the pledge "not to touch, taste or handle the unclean thing." To fortify still further against the demon of intemperance, they join the church and associate with the people of God; they take an active part in devotional services, and are completely surrounded by every influence and consideration of honor, self-respect, family welfare, personal interest, and every high and manly motive to integrity short of absolute prohibition, and yet under some inauspicious conjuncture of circumstances, a wave of the besetting propensity breaks them from their moorings, and they are driven a powerless wreck upon the merciless breakers of the inebriate's doom. Thus it goes until all manly resolution is stamped out, and in utter despair they passively gravitate into the inebriate's perdition—a damp, lurid atmosphere of remorse and regret in which retrospect of their past lives brings no pleasant recollections to cheer the gloomy prospect. By an inevitable law of mind they sink into a morose, sullen submission to the fate of the hopeless reprobate.

This hasty sketch is no overdrawn picture of the career of the incorrigible drunkard. In fact, were the loathsome monster of confirmed dipsomania put on exhibition in person with all the disgusting lineaments of gross depravity which gorge the cesspools of the liquor traffic, all verbal description would pale into a feeble shadow of the substantial vice.

The treatment of this delicate and complicated subject requires much thought and study to engineer the strong impulses of benevolence to successful results. Kindness and humanity are virtues of great power in all works of moral reform. When judiciously manipulated they win the confidence and respect of their intended beneficiaries, and secure hearty submission to the measures prescribed for their cure, very favorable to the success of the laudable enterprise. Self-respect, personal honor, pride of character, hope of victory and every ennobling motive should be encouraged until a healthy moral growth and virtuous maturity have been attained which will assure a permanent upright life of sobriety in the future.

Individual effort on the part of the victims of intemperance to reform themselves, and that of earnest, benevolent temperance workers to aid them in the noble undertaking, have probably filled the measure of their success as fully as they ever will or can.

These efforts, as we have seen, have been rewarded in lamentable and discouraging failure to achieve their laudable aims.

The resources of municipal authority have been only sparingly and empirically experimented with. Its capacity as a remedial agent has never been thoroughly tested. Laws have been enacted at various times by our Legislature professedly intended to regulate the sale of ardent spirits, and to prevent intemperance in their use.

So far, however, they have done but little good in the way of promoting sobriety or repressing drunkenness. They have usually been so vague in their terms, or their enforcement so feeble as to enable those engaged in the traffic to easily evade their penalties—the license to retail being the principal burden encumbering the trade. As the retail business is recognized as a legitimate industry, it should be held responsible for all damages growing out of its business transactions. Injuries to persons or property of the inebriate's family and others—the loss of his time and services to his family in consequence of the mental inequilibrium caused by the drug sold him, should be compensated for. This responsibility should be made valid by bona fide bondsmen of assured solvency sufficient to cover all probable damages that are liable to occur. The saloon industry is uncalled for by the real necessities of community.

It derives its support almost exclusively from the unnecessary, and even injurious consumption of his (the saloonist's) merchandise. The real desiderata of health and hygiene do not require large stores of stimulants, and when needed for medical purposes they are obtained from the drug store. Then, in view of the stupendous evils which flow out of this fountain of pestilence and prey upon the moral, social and material interests of society, in connection with the fact that for all medicinal purposes stimulants can be readily obtained in drug stores, their sale as a beverage should be prohibited by the strong arm of the law. Such wise regulations of the traffic as may adapt it to the wants of the people would contribute immensly to improve the present deplorable condition of our civilization in its relations to alcoholic inebriety.

Another order of legislation, founded upon the postulate presented in this paper, that confirmed dipsomania is a veritable, but generally intermittent, unsoundness of mind, should be directed to the redemption and restoration of this unfortunate class of our fellow citizens. That the intellect and judgment of the inebriate are so disturbed during the exacerbations of his malady as to render him incapable of transacting the business of his avocation, upon which his subsistence and that of his family depends, is a patent fact, doubted by no one. After the habit has been formed the inebriate has not the power to resist it, is another fact, with a few rare exceptions equally substantiated.

In this view of the subject, the duty of the State to take care of and provide for the restoration of confirmed inebriates is as morally binding as it is to extend similar charities to the insane from other causes. The inducements to benevolence are even greater, as desirable results are more promising. The asylums have been much more successful in reforming inebriates than the organized temperance work. The latter, it is said, have succeeded in reforming ten per cent. of those taken under treatment by moral influences, while the success of asylums has been thirty-three per cent. Those treated in the asylums are thought to be of the better class. They go voluntarily and submit themselves of their own volition to treatment from a desire to obtain a cure.

A serious detriment to the success of these institutions is said to result from the imperfect control the management has over the patients. Being voluntary, the patients exercise the right of leaving whenever they please, and also to be consulted as to restrictions placed upon their treatment. Under these conditions absolute prohibition can not be enforced, and in many cases it is a *sine qua non* to the cure.

This is a disease in which the judgment of the patient is exceedingly liable to err, and the right of determining the treatment to be employed, and also when the cure is complete, should be delegated to a competent person in the management of the institution. These embarrassments to successful treatment would not be in the way in a State charity; and in almost all cases the patients would become restored by perfect inhibition of the offending drug. The term required to effect a cure would vary according to the hold the habit had gained upon the system and the inherent will power of the patient to conform his habits to the dictates of a correct judgment.

A law embracing the main features of temperance work herein imperfectly shadowed, well matured in its details, and vigorously enforced, would guarantee to the inmates of the asylum all the benefits of prohibition which this potent remedy has in store for the drunkard. It would also have the most salutary hygienic effect of arresting many incipient cases before developing into mature inebriety.

PREVENTABLE DISEASE CIRCULAR.

Office of Indiana State Board of Health,
Rooms 20 and 21 Masonic Temple, Indianapolis.

SUGGESTIONS FOR THE RESTRICTION AND PREVENTION OF DIPHTHERIA, SCARLATINA, SMALL-POX AND TYPHOID FEVER.

Diphtheria, scarlatina and small-pox are all infectious as well as contagious diseases, hence the strict observance of the following precautions is of very great importance:

1. When a child or a young person has a sore throat, bad odor to its breath, and especially if it has fever, it should immediately be kept separated from all other persons, except necessary attendants, until it be ascertained whether or not it has diphtheria or scarlet fever.

2. Every person known to be sick with diphtheria, scarlatina or small-pox should be promptly and effectually isolated from the public; no more persons than are actually necessary should have charge of or visit the patient, and they should be restricted in their intercourse with other persons. Every case of either of these diseases should immediately be reported to the Board of Health, as the law requires.

3. Plain and distinct notices should be placed upon the premises or house in which there is a person sick with diphtheria, scarlet fever or small-pox, and no child should be allowed to enter.

4. Remember, that vaccination and re-vaccination, with fresh bovine virus, is a safe and sure prevention of small-pox.

5. The room into which one sick with diphtheria, scarlet fever or small-pox is placed should previously be cleared of all needless clothing, carpets, drapery, and other materials likely to harbor the poison of the disease. This room should constantly receive a liberal supply of fresh air, without currents or drafts upon the patient. It will be well also to have the sun shine directly into the room.

6. The discharges from the throat, nose, and mouth are extremely liable to communicate these diseases, and should be received in vessels containing a strong solution of copperas (sulphate of iron), Formula No. 1, or on soft rags or pieces of cloth, which should immediately be burned.

7. The discharges from the kidneys and bowels are also dangerous, and should be passed into vessels containing a strong solution of sulphate of iron (copperas), see Formula No. 1, and then be buried at least 100 feet distant from any well; or when this is impracticable they should be passed on old cloths, which should immediately be burned.

8. The clothing, towels, bed-linen, etc., on removal from the patient should at once, before removal from the room, be placed in a pail or tub of boiling-hot zinc-solution. See Formula Nos. 3 and 4.

9. Nurses and attendants should be required to keep themselves and their patient as clean as possible; their own hands should frequently be washed and disinfected by chlorinated soda. See Formula No. 5.

10. All persons recovering from these diseases should be considered dangerous; therefore such a person should not be permitted to associate with others, or to attend school, church, or any public assembly until the throat and any sores which may be on the lips, nose or body are healed, nor until in the judgment of a careful and intelligent physician he can do so without endangering others; nor until after all his clothing has been thoroughly disinfected, and this without regard to the time which has elapsed since recovery, if the time is less than one year. In case of small-pox all infected clothing or bedding should be burned. Nor should a person from premises in which there is or has been a case of either of these diseases attend any school, Sunday-school, church, or public assembly, or be permitted to do so, until after disinfection of such premises and of the clothing worn by such person if it shall have been exposed to the contagion of the disease.

11. The body of a person who has died of diphthera or scarlet fever should be washed with a zinc solution of double the strength stated in Formula 4 or 5, then wrapped in a sheet wet with the zinc solution, and at once be buried. In no case should the body be exposed to view. In case of death from small-pox the body should, unclothed and unwashed, be wrapped in a heavy sheet saturated with the solution and immediately buried.

12. No public funeral should be held at a house in which there is a case of, or in which a death from one of these diseases has recently occurred. Except under extraordinary precautions there should be no public funeral of a person who has died from either of those maladies. No child at least, and it would be better in most cases that few adults should attend such funerals.

13. Avoid in every possible manner the special contagion of these diseases. This is especially important with children who are always more susceptible to disease than adults. Mild cases in adults, however, communicate fatal cases to children.

14. *Do not let a child go near* a case of diphtheria, scarlatina, or small-pox. Do not permit any person or thing, or a dog, cat or other animal to come direct from a case of these diseases to a child. Unless your services are needed, keep away from them yourself. If you do visit a case, bathe yourself and change and disinfect your clothing before you go where there is a child, or into a public assembly.

15. The contagion of these diseases retains its virulence for some time, and can be carried a long distance in various substances and articles in which it may have found lodgment. While it is not definitely proved that the germs of these maladies are propagated in any substance outside the living human or animal body, it is possible that they may be found to be thus propagated. Therefore, and because the breathing of air laden with the emanations from decaying fruit, vegetables, or meat, or from sewers, cess-pools, sinks, and other receptacles of filth, is believed to endanger health, great care should be taken to have the house, premises, and

everything connected with dwellings kept clean and dry; to have sewer connections well trapped, and house-drains constantly well ventilated; and to have all carriers of filth well disinfected. Do not permit a child to enter a privy, water-closet, or breathe the air from a privy, water-closet, cess-pool or sewer into which discharges from persons sick with these diseases have entered, nor to drink water or milk which has been exposed to such air.

16. Do not permit a child to ride in a hack or other closed carriage in which has been a person sick with diphtheria, scarlatina or small-pox, except the carriage has since been thoroughly disinfected with fumes of burning sulphur, as specified in paragraphs b., c. and d.

17. All influences which cause sore throats or any impairment of health probably tend to promote the taking and spreading of these diseases. Among the conditions external to the body liable to cause the spread of them, perhaps the most common are: infected air, infected water, and *contact with infected substances or persons.* Because of this, and as means of lessening the danger of contracting other diseases, the following precautions should always be taken, but more particularly during the prevalence of any such disease:

18. Do not wear or handle clothing worn by a person during sickness or convalescence from an attack of either the diseases.

19. Beware of any person who has a sore throat. Do not kiss or inhale the breath of such a person. Do not drink from the same cup, blow the same whistle, or put his pencil or pen in your mouth.

20. Beware of crowded assemblies in unventilated rooms.

21. Do not drink water which has a bad taste or odor, or which comes from a source that renders it liable to be impure, especially if there is reason to believe it may contain something derived from a person sick with *diphtheria or scarlet fever, especially,* be careful about the cleanliness and purity of the *milk supplied* by your *dairyman.* Numerous epidemics of *scarlet fever* and *diphtheria* have originated with careless dairymen.

TYPHOID FEVER.

I.—ITS SANITARY FEATURES.

22. For sanitary purposes, typhoid fever is a contagious disease. Its specific poison will produce the same disease if introduced into the system of a susceptible healthy individual.

23. The specific poison of typhoid fever is contained in the diarrheal discharges (and, possibly, in other excretions and the exhalations) of the patient. If these obtain access to a water supply, or to articles of food or drink, an outbreak of typhoid will follow among those partaking of such water or food. Repeated instances of this kind have been traced to the use of water from an infected well and to infected milk.

24. The diarrheal discharges, when dry, may preserve the poison as effectually as the crusts of small-pox, the scales of scarlet fever, and the dried membrane of diphtheria, preserve the specific poisons of those diseases.

25. These discharges, coming into contact with putrid animal matter, as by being thrown into water-closets and privies, are capable of saturating such matter with the typhoid fever poison in its most concentrated and virulent form.

II.—PREVENTION OF ITS SPREAD.

26. When a case of typhoid fever is known to exist in a neighborhood, strict examination should be made regarding the surroundings and character of the water supply of the locality. If there be any reason to suspect that this may be possibly contaminated from the case, its use should be forbidden until the proper measures can be taken to protect it against such contamination, and the question of its safety be definitely settled. The location of wells, with reference to the privy into which typhoid discharges are thrown, the inclination of the ground between such points, and the character of the soil, should all be taken into consideration. Wells into which surface-washings from the infected premises might find their way by the natural slope of the ground, and wells within a given distance of the privy of such premises, should be at once abandoned. The contaminating distance varies according to the nature of the soil and the depth of the well; in a loose, porous soil, a well thirty to forty feet deep will be dangerous if within one hundred feet of typhoid premises.

27. Scrupulous cleanliness in every portion of the premises should be enforced. All decaying animal and vegetable matter, and every kind and source of filth in and around the house, should be removed, and disinfectants be freely used. Surface drains and gutters, areas, out-houses, privies, shelters for domestic amimals, fowls etc., should receive close and constant attention, and the *Copperas Disinfectant* (see page —) be used freely and regularly in every such place.

28. Within the infected house itself the important matter to attend to is the prompt disinfection of the discharges from the patient, and of everything liable to come in contact with such discharges. The following details should be observed:

(*a*) All discharges should be received in vessels containing a quart or so of the *Zinc Disinfectant* (see pages — and —), or a gill of a concentrated (five per cent.) solution of chloride of zinc, or a solution of copperas, Formula No. 1. (*b*) If there be a water-closet this should be used exclusively for the discharges from the patient while the fever lasts, and the receptacle should be flooded three or four times a day with the *Zinc Disinfectant*. (*c*) When practicable—instead of being thrown into a privy—the discharges, after being thoroughly disinfected, should be buried in the ground, at least one hundred feet away from any well or other source of water supply. (*d*) A pail or tub of the *Zinc Disinfectant* should be kept in the sick-room, and into this all clothing, blankets, sheets, towels, etc., used about the patient or in the room, should be dropped immediately after use, and before being removed from the room. They should then be well boiled as soon as practicable. Rags, closet paper, or other material used about the person of the patient, should be immediately burned, and the same general precautions should be adopted and disinfectants resorted to that are recommended for the other contagious diseases.

DISINFECTION OF ROOMS, CLOTHING, ETC.

29. After a death or recovery from these diseases, the room in which there has been a case of one of them, whether fatal or not, should, with all its contents, be thoroughly disinfected by exposure for several hours to strong fumes of burning sulphur, and then, if possible, it should for several hours or days be exposed to currents of fresh air.

a. Because of the innumerable ways in which the contagion may be scattered about the house and premises where there has been for some little time a case of *diphtheria*, *scarlatina* or *small-pox*, the entire house and out-buildings, including cellar, garret, wood-shed and privy, will usually need to be disinfected.

b. Rooms to be disinfected must be vacated. Heavy clothing, blankets, bedding, and other articles which can not be treated with the zinc solution, should be spread out so as to be thoroughly exposed during fumigation, which should take place in the room where the clothing, etc., has been used in connection with the patient. For a room about ten feet square, at least two pounds of sulphur should be used; for larger rooms proportionately increased quantities, at the rate of two pounds for each 1,000 cubic feet of air space.

c. Close the rooms as tight as possible, place the sulphur in iron pans supported upon bricks, set it on fire by hot coals or with the aid of a spoonful of alcohol lighted by a match; be careful not to breathe the fumes of the burning sulphur, and when certain the sulphur is burning well, leave the room, close the door, and allow the room to be closed for twenty-four hours.

d. Care should be taken to secure the complete burning of as much of the sulphur as possible. For this purpose the iron pan or pot in which the sulphur is to be placed may previously be heated, and may be placed in the room over hot coals in a pan of ashes set upon bricks.

e. Cellars, yards, stables, gutters, privies, cess-pools, water closets, drains, sewers, etc., should be frequently and liberally treated with the copperas solution, made as described in Formula 1.

f. Body and Bed Clothing, etc.—It is *best* to burn all articles which have been in contact with persons sick with contagious or infectious diseases. Articles too valuable to be destroyed should be exposed for one hour to a dry heat of from 240° F. to 250° F., or to be treated as follows:

g. Cotton, linen, flannels, blankets, etc., should be treated with the boiling-hot zinc solution, Formula 3 or 4, introducing them piece by piece, securing thorough wetting and boiling for at least half an hour. Heavy woolen clothing, silks, furs, stuffed bed covers, beds and other articles which can not be treated with the zinc solution, should be hung in the room during the fumigation, pockets being turned inside out and the whole garment being thoroughly exposed. Afterward they should be hung in the open air, beaten and shaken. Carpets are best fumigated on the floor, but should afterward be removed to the open air and thoroughly beaten. Pillows, beds, stuffed mattresses, upholstered furniture, etc., after being disinfected on the outside, may be cut open and their contents again exposed to the fumes of burning sulphur. In no case should the thorough disinfection of clothing, bedding, etc., be omitted. Infected clothing and bedding have been known to communicate these diseases months after infection.

THE FOLLOWING DISINFECTANTS ARE RECOMMENDED.

Sunlight, fresh air, soap and water, thorough cleanliness—for general use.

For sink pipes and water-closets, privies, ash-pits, cess-pools, drains, and in vessels used for discharges from kidneys and bowels, and other offensive places:

No. 1.	Sulphate of iron (copperas, green vitrol)	2 pounds
	Rain water	1 gallon

Misce.
Sig.—Use freely.

When much is wanted dissolve 60 pounds of copperas in a barrel of water.

No. 2.	Nitrate of lead	1 pound
	Rain water	1 gallon

Misce.
Sig.—Use freely.

FOR ARTICLES OF CLOTHING, BEDDING, ETC., USED ABOUT THE PATIENT.

No. 3.	Sulphate of zinc	9 ounces
	Crude carbolic acid	1½ ounces
	Warm rain water	3 gallons

Misce.

This is perhaps the most valuable and reliable disinfectant in use.

No. 4.	Sulphate of zinc	5 ounces
	Chloride of sodium (common salt)	2½ ounces
	Rain water	1 gallon

Misce.

Throw all articles of body linen, sheets, etc., at once into any of these solutions and boil in clear water. In malignant cases, such articles should be boiled in one of the solutions diluted with an equal quantity of water. They can be used freely in the sick room. They do not stain. A towel may be wet with them and hung in the room. A sheet may be hung across the entrance, hall or door, and kept constantly wet with them. Nurses and attendants will find it well to occasionally wash their hands in one of these fluids.

TO WASH FURNITURE AND FIXTURES OF AN INFECTED ROOM, AND TO BATHE THE HANDS OF ATTENDANTS.

No. 5. One pint of Labarraque's Solution (chlorinated soda) in five pints of water.

No. 6.	Chloride of zinc	4 ounces
	Rain water	1 pint

Sig.—Two tablespoonsful of this to a pint of water.

No. 7.	Bi-chloride of mercury (corrosive sublimate)	1 ounce
	Chloride of sodium (common salt)	3 ounces
	Rain water	1 gallon

Micse.

THYMOL WATER.

Made by adding one tablespoonful Spirits of Thymol to a half a gallon of water.

Spirits of Thymol is composed of—

Thymol	1 ounce
Alcohol, 85 per cent	3 ounces

May be used for all the disinfectant purposes of carbolic acid; it is quite as efficient in this strength, and has an agreeable odor.

TO REMOVE BAD ODOR FROM RAIN WATER.

No. 8.	Permanganate of potash	1 drachm
	Rain water	1 gallon

Misce.

Sig.—Stir some of this solution in the offensive smelling water.

There is no better disinfectant for any purpose than this solution of permanganate of potash; the only possible objection to its use is its purple stain.

All cases of contagious or infectious disease should at once be put under the care of an intelligent, competent physician, and *immediately* reported to the Secretary of the Board of Health within whose jurisdiction the patient is situated.

Health officers will please see that a copy of this circular is placed in every family where infectious or contagious diseases are prevailing.

By order of the State Board of Health.

E. S. ELDER, M. D.,
Secretary and Executive Officer.

Copies of this circular can be obtained by applying to the Secretary of the State Board of Health.

LIST OF PHYSICIANS AND ACCOUCHEURS.

Abbreviations—A., Accoucheur; E., Eclectic; H., Homeopathic; P. M., Physio-Med.; R., Regular; N. R., not reported.

This list is copied from the reports of County Health Officers, and any mistakes belong to them.

The name of the County Health Officer is printed in capitals.

Adams County.

Names.	*Post Office.*	*School.*	*Names.*	*Post Office.*	*School.*
Aspy, H. M	Geneva	R	Hughes, A	Monroe	P. M
Boyers, J. S	Decatur	R	Harper, J. S	Pleasant Mills	R
Brockwell, — —	Berne	—	JELLEFF, C. A	Decatur	R
Coverdale, J. S	Decatur	R	Kuntz, Christina	Berne	P. M
Christy, S. K	Decatur	R	McMellin, W. W. P	Decatur	R
Dorwin, T. T	Decatur	R	Lobensstine, Lewis F.	Berne	R
Deihl, Hannah	Decatur	A	Ralston, S. G	Geneva	R
Freeman, B. R	Decatur	R	Sprunger, P. A	Berne	H
Ford, Adam	Geneva	E	Trout, D. G. M	Decatur	R
Goodwin, C. A	Monroe	R	Wagoner, Mary	Monroe	A
Holloway, A. G	Decatur	R	Ward, J. B	Geneva	R
Holloway, Mrs. M. L	Decatur	A	Walser, J. A	Linn Grove	R
Haughton, A	Linn Grove	R			

Regular, 17; Eclectic, 1; Physio-Medical, 2; Homeopathic, 1; Accoucheur, 3; Unknown, 1.

Allen County.

Adams, Horace E	Woodburn	R	Greenwell, F	Huntertown	R
Ayres, H. P	Ft. Wayne	R	Green, Mrs. M. F.	Ft. Wayne	H
Bartley, Michael	Ft. Wayne	R	Heaton, C. E	Hoagland.	R
Brown, O. V	Cedarville	R	Hetrick, Jacob	Ft. Wayne	R
Bilderbach, J. W.	New Haven	R	Harris, Miss E. F.	Ft. Wayne	H
Brooks, W. H.	Ft. Wayne	R	Harris, L. P	Ft. Wayne	H
Bowen, G. W	Ft. Wayne	H	Hill, Roland	Ft. Wayne	R
Brubaker, J. L	Ft. Wayne	—	Jones, J. H	Ft. Wayne	—
Bruebach, G. T.	Ft. Wayne	R	Jackson, P. N	Huntertown	—
Cary, D. B	Academy	—	Knode, R. S	Ft. Wayne	R
Connelly, W. A.	Monroeville	R	Laubach, A. J	Ft. Wayne	R
Cosgrove, F. K	Maysville.	R	Lipes, B. F	Cherubusco.	R
Chambers, J. D.	Ft. Wayne	R	Leiter, C. A.	Monroeville	R
Charter, J. H	Ft. Wayne	—	Leonard, P. M	Ft. Wayne	H
Canfield, Pauline E	Ft. Wayne	H	Metcalf, S. C	Ft. Wayne	R
Caldwell, James		R	Myers, I. N	Maples	R
De Dier, Lucine	New Haven.	—	Meyer, C. F.	Ft. Wayne	R
De Vilbiss, Allen.	Ft. Wayne	R	Martz, Christian	Ft. Wayne	H
Dryer, Chas. R	Ft. Wayne	R	McCaskey, G. W	Ft. Wayne	R
Dayton, A. M.	Ft. Wayne	E	McCullough, T. P	Ft. Wayne	R
Dills, T. J	Ft. Wayne	R	McCullough, H.	Ft. Wayne	R
Dinnen, J. N	Ft. Wayne	R	McHenry, J. D	Maples	R
Engle, A	Monroeville	E	McDowell, H. C	Arcola	R
Egalf, H. M.	Arcola	—	Myers, W. H	Ft. Wayne	R
Engleman, C. G	Dixon.	R	McCormick, T. H.	Poe	R
Ferguson, W. T	Ft. Wayne	R	McIntosh, G. B.	Ft. Wayne	R
Fiser, C. M	Ft. Wayne	R	McCausland, G. W	Ft. Wayne	R
Greenawalt, G. L.	Ft. Wayne	R	Neischang, C. F	Ft. Wayne	R
Grout, Mrs. B	Ft. Wayne	E	Neeley, H. F	Zanesville	R
Gregg, Jas. S	Ft. Wayne	R	Null, L. S.	New Haven.	E
Gordon, Chas. W	Wallen	R	Niet, J	Ft. Wayne	—
Gunther, J. M.	Harlan	R	Omo, Joseph	Harlan	R

Allen County—Continued.

Names.	*Post Office.*	*School.*	*Names.*	*Post Office.*	*School.*
Payton, Lewis	Ft. Wayne	R	Stevens, S. P	Monroeville	E
Porter, M. F	Ft. Wayne	R	Smith, C. S	Ft. Wayne	R
Poyneer, Geo. W	Ft. Wayne	R	Smith, B. N	Ft. Wayne	R
Proegler, Karl	Ft. Wayne	R	Seaton, John	Ft. Wayne	R
Prior, H. W	Ft. Wayne	R	Sledd, S. D	Nine Mile	R
Pearson, Mrs. M. A	Ft. Wayne	—	Sturgis, L. T	Huntertown	R
Rosenthal, I. N	Ft. Wayne	R	Shellabarger, E. B	New Haven	R
Ross, G. A	Ft. Wayne	H	Swanston, W. E	Leo	R
Rauch, A. J	Ft. Wayne	R	Trexler, L	Ft. Wayne	R
Ruhl, Wm. D	Sheldon	R	Van Buskirk, A. E.	Ft. Wayne	R
Reed, E. L	Kelseyville	E	Wilder, E. P. B	Monroeville	E
Simpson, W. D	Ft. Wayne	R	Worley, G. N	Poe	R
Schmitt, L. C	Ft. Wayne	R	Woodworth, B. S	Ft. Wayne	R
Smith, J. L	Hoagland	E	Williamson, M. F	New Haven	R
Shutt, J. M	Harlan	E	Wherry, W. P	Ft. Wayne	R
Swift, C. F	Maysville	R	Wheelock, K. K	Ft. Wayne	R
SWERINGEN, H. V.	Ft. Wayne	R	Younge, J. W	Ft. Wayne	R
Stemen, C. B	Ft. Wayne	R	Yagerlanner, —	Nine Mile	R
Stemen, G. B	Ft. Wayne	R			

Regular, 75; Eclectic, 9; Homeopathic, 8; Unknown, 9.

Bartholomew County.

ARWINE, J. S	Columbus	R	Linton, S. M	Columbus	R
Armer, David S	Columbus	R	Lawrence, W. M	Jonesville	E
Barrett, S. J	Columbus	R	McLeod, A. J	Columbus	R
Banker, W. T	Columbus	R	Maring, J. N	Columbus	R
Butler, C. H	Clifford	R	Minnett, O. H	Jonesville	R
Banks, W. H	Waymansville	R	Morris, S. H	Columbus	R
Beck, William H	Hartsville	R	McCoy, George T	Columbus	R
Book, Mrs. C. W	Jonesville	A	Norton, F. D	Petersville	R
Clark, Isaac S	Columbus	R	Newton, J. W	Hope	R
Craig, M. D	Taylorsville	R	Pfeiffer, Robert	Hope	R
Crayl, Mrs. Ellen	Columbus	A	Richards, F. B	Taylorsville	R
Casby, George O	Burnsville	R	Roope, R. H	Columbus	R
Crisler, Joseph B	Newbern	E	Rice, A	Columbus	H
Davis, Joseph H	Azalia	R	Riley, Joseph J	St. Louis Crossing	R
Elrod, Moses N	Hartsville	R	Repp, Mrs. F. A	Taylorsville	A
Falk, Frederick	Columbus	R	Regnas, Eugene E	Hope	R
Fogle, E. T	Hartsville	E	Smalley, J. K	Newbern	R
Frantzreb, Mrs. T	Columbus	A	Stapp, Simeon	Hope	R
Galloway, C. E	Hartsville	E	Shane, T. A	Columbus	H
Hudson, J. B	Columbus	E	Summers, J. W	Columbus	R
Hawley, K. D	Elizabethtown	R	Smith, T. E	South Bethany	R
Hilligoss, E. W. S	St. Louis Crossing	R	Thompson, D. A	Elizabethtown	R
Howe, O. E	Taylorsville	R	Voris, S. M	Columbus	R
Hirshberg, Mrs. A	Columbus	A	Wright, John F	Columbus	R
Kent, C. V	Hope	R	Weisenberg, J	Moore's Vineyard	R
Kincaid, S. F	Walesboro	E	Winterrowd, N. S	Hope	R
Lopp, W. H.	Columbus	R	West, A. F	Hartsville	E

Regular, 40; Eclectic, 7; Homeopathic, 5; Accoucheur, 5.

Benton County.

Bristow, J	Templeton	R	Hard, A. D	Ambia	R
Beard, J. M	Ambia	R	Kalb, Jonathan	Oxford	R
Boice, B. R	Earl Park	R	MAVITY, JAMES S	Fowler	R
Boice, Alexander	Earl Park	R	Moore, A. V	Ambia	R
Beckner, J. F., Jr	Earl Park	H	McConnell, Henry C	Oxford	E
Christley, J. B	Boswell	R	Purdy, Albert J	Fowler	R
Fall, C. W	Templeton	R	Rodman, J. M	Fowler	R
Green, J. W	Boswell	R	Roberts, Samuel R	Oxford	R
Gray, James A	Otterbein	R	Simpkins, J. C	Boswell	R
Gray, W. H	Wadena	E	Thompson, Thomas J.	Otterbein	R
Green, Nellie E	Fowler	R	Wells, A. W	Oxford	R
Hatch, Jethro	Kentland	R	Whitcomb, J. H	Boswell	R
Hunter, Abner F	Raub	R			

Regular, 22; Homeopathic, 1: Eclectic, 2.

Blackford County.

Names.	*Post Office.*	*School.*	*Names.*	*Post Office.*	*School.*
Clouser, N. D	Hartford City	R	McFarland, J. E	Mill Grove	H
DAVISSON, H. C	Hartford City	R	Mix, Solomon	Hartford City	R
Drayer, Peter	Hartford City	R	Orr, David	Mill Grove	H
Goodin, S. A	Montpelier	E	Sage, John W	Hartford City	E
Hardin, A	Hartford City	H	Sellers, John	Montpelier	R
Harrold, John R	Roll	R	Shull, C. Q	Montpelier	R
Hammon, E. W	Montpelier	R	Wheeler, W. H	Hartford City	H
Landon, L. C	Priam	R	Wilt, W. W	Montpelier	R
Mason, C. R	Hartford City	R	White, R. B	Montpelier	H

Regular, 11; Homeopathic, 5; Eclectic, 2.

Boone County.

Alford, J. S	Zionsville	R	Hamilton, J. A	Advance	R
Bounnell, T. A	New Brunswick	R	Hamilton, J. A	Northfield	R
Bennington, A. M	Lebanon	R	Hawk, J. R	Thorntown	E
Brown, R. A	Zionsville	R	Jones, R. E	Lebanon	R
Ball, J. P	Lebanon	E	Jordon, T. W	White Lick	R
Brown, E. L	Thorntown	E	Kellogg, N. P	Lebanon	H
Brindle, B. F	Kimberlin	P-M	Lane, T. H	Lebanon	R
Baker, J. J	Big Spring	P-M	Leach, J. T	New Brunswick	R
Burke, Geo. L	Jamestown	R	Miller, A. O	Lebanon	R
Bounnell, M. H	Lebanon	R	McGee, J. A	Zionsville	P-M
Banta, S. J	Jamestown	R	McIntyre, Mrs. M. M.	Lebanon	A
Banta, J. Q	Jamestown	R	Nickey, A. S	Elizaville	R
Curryer, W. F	Thorntown	E	O'Rear, J. H	Jamestown	R
Cotton, H. T	Zionsville	R	Porter, Jno. R	Lebanon	R
Crafton, W. F	Lebanon	R	PORTER, A. G	Lebanon	R
Cain, Jno. M	Northfield	R	Purdy, J. C	Kimberlin	P-M
Crosby, W	Zionsville	—	Rose, M. H	Thorntown	R
Clark, A. J	Elizaville	R	Reagan, Jesse	Reese's Mill	R
Coons, H. W	Lebanon	H	Ross, J. T	Lebanon	R
Dickerson, Geo	Northfield	E	Smith, C. H	Lebanon	R
Davis, D. B	Thorntown	R	Scull, D. C	Lebanon	R
Duzan, G. N	Zionsville	R	Shulse, W. H	Lebanon	R
Dunnington, A	Thorntown	R	Sims, Jno. F	Thorntown	R
Everett, W. E	White Lick	R	Steelsmith, J. M	Elizaville	R
Finch, A. M	Jamestown	R	Stephenson, W. J	Kimberlin	P-M
Games, J. D	Royalton	R	Utter, J. A	Thorntown	H
Garrison, J. L. F	Lebanon	R	Williamson, R. A	Lebanon	R
Hardy, J. S	Whitestown	R	Ware, W. H	Cason	R
Heady, W. S	Jamestown	R	Walker, D. R	Reese's Mill	R
Harrison, T. H	Lebanon	R			

Regular, 31; Homeopathic, 2; Eclectic, 1; Physio-Medico, 3; Accoucheur, 1; not reported, 1.

Brown County.

Beaty, Wm. H	Needmore	R	Merryman, Sarah	Ramelton	A
Browning, Nathan	Story P. O	R	Ralphy, A. J	Nashville	R
Banks, Wm. H	Waymansville	R	Roddy, W. H	Mt. Moriah	R
Duncan, Marion A	New Bellville	R	Ritchards, Joanah	Ritchards P. O	A
Fleener, Joseph N	Needmore	E	SPENCER, A. C	Bean Blossom	R
Griffitt, Arnold, S	Story P. O	R	Smith, Marietta J	Belmont	A
Genolin, Jno. F	Nashville	R	Taggart, C. F	Nashville	R
Holder, R. E	South Bethany	R	Ward, James G	Bean Blossom	R
Hatchet, Louisa	Schooner P. O	A	Wilson, Samuel C	Pike's Peak	H
Judah, M. F	Bloomington	E	Warring, Thos. E	Belmont	E
Leonard, J. H	Elkinsville	R	Warring, Jno. M	Smithville	E
Moser, James P	Spearsville	R	Whitehorn, Amy	Pike's Peak	A
Mossop, Stephen	Schooner P. O	P-M			

Regular, 14; Homeopathic, 1; Eclectic, 4; Physio-Medico, 1; Accoucheur, 5.

Carroll County.

Names.	*Post Office.*	*School.*
Angell, Chas. E	Delphi	R
Angell, Charles.	Pittsburg	R
Armstrong, F. G	Camden	R
Anderson, Samuel	Burlington	R
Armstrong, E. W.	Camden	R
Bandel, J. W	Lockport	R
Bradfield, B. D	Deer Creek	R
Beck, E. W. H	Delphi	R
Blanchard, J. R	Delphi	R
Bullard, W. F	Plymouth.	R
Cook, A. J	Flora	R
Chittick, Charles	Burlington	R
Cochran, I. N.	Radnor	R
Calvert, R. H	Northern Prison Physician.	R
Cromer, J. R	Flora	R
Camp, Charles	Camden.	E
Conway, P. W	Ockley	R
Doane, George M.	Burlington	
Greer, J. G	Patton.	P-M
Herron, R. D	Cutler.	R
Jackson, C. P.	Bringhurst	R
Kelsey, J. S.	Cutler.	R
Kennard, J. L	Yeoman	R
Landes, B. F	Burlington	R
Loop, Wm. M.	Deer Creek	R
Lyons, F. P.	Carroll	R
McFatridge, L. C.	Carroll	R
Morrow, J. L	Delphi	R
Moore, A. G	Carroll	R
McCleary, D. A.	Deer Creek	R
Noland, S. T	Delphi	R
Newell, J. W	Rockfield	R
Nice, P. F	Deer Creek	
Plank, W. H	Deer Creek	R
Payton, W. B.	Carroll	
Robinson, F. M.	Delphi	H
Robinson, L. D.	Delphi	H
Shopf, Catharine	Patton	A
Scholl, C. E.	Camden.	R
Shultz, F. A	Delphi	E
Shultz, J. J	Delphi	E
Smith, W	Delphi	R
Sharer, W. F	Delphi	R
Snyder, B. F	Camden.	R
Stewart, J. W	Burrows	R
Souder, C. L	Burrows	R
Trobaugh, W. A	Cutler.	R
Tidrick, R. R.	Bringhurst	R
Wirt, J. H	Flora	E
Wilson, R. I	Lockport	R
WALKER, E	Delphi	E
Wright, J. A	Burlington	R
Wall, W. H.	Delphi	
Viney, D. M	Cutler	R
Yonkey, W. P	Camden.	E

Regular, 41; Homeopathic, 2; Physio-Medico, 1; Eclectic, 6; Accoucheur, 1; not stated, 4.

Cass County.

Adrain, J. A	Logansport	R
Banta, H. J.	Logansport	R
Ballard, J. W.	Logansport	R
Baker, I. J	Logansport	E
Barnett, D. C.	Young America	R
Baldwin, T	Galveston	R
Buchanan, A. W	Metea	R
Brown,	Young America	E
Bell, Wm. H.	Logansport	R
Burton, J. A	Royal Center	E
Busjahn, F. A.	Logansport	R
Cady, N. W.	Logansport	R
Carpenter, L. W.	Logansport	H
Coleman, A.	Logansport	R
Conrad, Nancy	Twelve Mile	A
Clevenger, B. S	Logansport	E
Chord, A. M.	Logansport	E
Fansler, D. N.	Logansport	R
Faber, R	Logansport	R
Fitch, G. N	Logansport	R
Fouts, D, N.	Royal Center	E
Geer, E	Curveton	E
Hoover, E. M	Royal Center	R
Hattery, H. D.	Logansport	R
Herrmann, John	Logansport	R
IRONS, JOHN W	Logansport	H
Jordan, M. A	Logansport	E
Justice, J. M	Logansport	R
Landrey, S. F.	Galveston.	R
Lester, H. C.	Logansport	R
Loop, J. C.	Galveston.	R
Loop, Z. U.	Galveston.	R
Lybrook, W. E	Young America	R
Lynas, J. B	Logansport	E
Million, David	Royal Center	E
Myers, A	Logansport	E
McCrea, T. P	Logansport.	R
Perkins, Sarah	Logansport.	A
Petri, M.	Logansport.	A
Parrish	Clymers,	E
Parks, C. D.	Young America.	E
Pickett, J. J.	Dow.	E
Powell, J. Z.	Logansport	R
Pickett, Cyrus	Pine.	E
Quick, L. L.	New Waverly.	R
Quick, R. H.	New Waverly.	R
Rolshausen, Eleanor	Logansport	R
Stevens, B. C	Logansport	R
Shultz, J. W.	Logansport	E
Shultz, J. B	Logansport	E
Sterrett, J. E	Logansport	R
Skinner, H. D.	Twelve Mile	R
Simmons, L. A	Galveston.	R
Smith, J. S	Galveston.	E
Talbott, J. W.	Logansport	R
Talbott, J. H	Logansport	R
Taylor, Jos. L.	Logansport	E
Taylor, Caroline	Logansport	E
Thomas, James	Royal Center	R
Watkins, M. S.	Lincoln	E
Wild, John	Logansport	E

Regular, 34; Eclectic, 22; Homeopathic, 2; Accoucheur, 3.

Clark County.

Names.	*Post Office.*	*School.*
Allhands, David S	New Washington	E
Adair, Samuel L	New Washington	R
Beckwith, Lod W.	Jeffersonville.	R
Bryant, Allen	Jeffersonville	—
Bruner, Emory W.	Jeffersonville	R
Carr, Francis M.	Oregon	R
Covert, John	Oregon	R
Covert, George M.	Sellersburg	R
Charles, John N.	New Providence	R
Coombs, David H	Charlestown	R
Davis, William H.	Bethlehem	—
Douglas, Mrs. Salena.	Henryville	A
Fritzland, Thomas	Otisco	R
Ferguson, Henry H	Henryville	R
Field, Nathaniel	Jeffersonville.	R
Field, Davis L	Jeffersonville.	R
Fouts, William D	Jeffersonville.	R
Fouts, William, Jr	Jeffersonville.	R
GRAHAM, T. A	Jeffersonville.	R
Haymaker, G. W	Charlestown	R
Hay, Campbell	Charlestown	R
Hauss, Aug. P	Sellersburg	E
Holland, John N	Jeffersonville.	H
Hinton, Mrs. Kittie	Jeffersonville	A
Hertzsch, Mrs. C	Jeffersonville	A
Hosee, Mrs. Mary	Jeffersonville.	A
Jones, Cadwallader	New Washington	R
Lewman, George W	Jeffersonville	R
Loomis, John.	Jeffersonville.	H
McBride, Charles R	Jeffersonville.	R
McCoy, William N	Jeffersonville.	R
McClure, David	Jeffersonville.	R
McClure, Sidney C	Jeffersonville.	R
McClure, Jesse D	Jeffersonville.	R
McCaslin, Charles H	Bethlehem	—
McKinney, Martin V.	Jeffersonville	R
Peyton, David O	Henryville	R
Poff, Mrs. Lena.	St. Joseph's Hill	A
Poindexter, John M	Utica	R
Pinney, Mrs. Ellen	Jeffersonville.	A
Reynolds, James M	Memphis	R
Ruddell, Isaac N.	Jeffersonville.	R
Russell, James R.	Nabb's Station	R
Sanderson, Thomas	Charlestown	R
Scull, Benjamin F	Bethlehem	—
Secoy, Solomon H	Jeffersonville.	H
Sheets, William H	Jeffersonville.	R
Sherrod. William F	Jeffersonville.	R
Schotmiller. Mrs. M	Bennettsville.	A
Spurgeon, Frank	Muddy Fork P. O.	R
Stalker, Benjamin F	New Providence	R
Stanley, J. C	Charlestown	—
Scholl, Mrs. Amelia	Memphis	A
Taggart, John F	Solon	R
Taggart, William.	Solon	R
Taggart, Josiah.	Solon	R
Taggart, Samuel C.	Jeffersonville.	R
Watkins, E. M	Jeffersonville.	R
Wells, Francis M	Sellersburg	R
Williams. Lewis L	Utica	R
Wisner. William E	Henryville	R
Work, William F.	Charlestown	E
Zuerner, Joseph	Jeffersonville.	R

Regular, 44; Homeopathic, 3; Eclectic, 3; Accoucheur, 8; Not reported, 5.

Clay County.

Allen, Hiram	Bowling Green	R
Allen, Charles T	Bowling Green	R
Bartholomew, N. B.	Poland	R
Black, S. D	Brazil.	R
Byers, L. S	Staunton	R
Berne, S. P	Clay City	R
Bronilette, S. L.	Clay City	R
Brown, W B	Martz	R
Briley, A	Coffey Post Office	R
Brock, L. G	Carbon	R
Culbertson, R. H	Brazil.	R
Chamberlain, W. L.	Poland	E
Cushman, D. W	Cloverland	R
Coffey, Edwin	Saline City	R
Dillman, M. L	Staunton	R
Dickson, W. J	Knightsville	R
Elliott, C. A	Poland	R
Elliott, D. O	Knightsville	R
Finley, G. W	Harmony	R
Freed. M. A	Clay City	R
Gifford, J. C	Brazil.	R
Gifford, W. H	Brazil.	R
Glassgo, T. A	Brazil.	R
Gaut, R.	Saline City	R
Griffith, L. C	Saline City	R
Gertsmeyer, J	Staunton	R
Green, T. C	Ashboro.	R
Hawkins, W. B	Brazil.	R
Hansell, D	Lena	R
Holmes, B. F	Asherville	R
Hale, L. A	Martz	R
Hyatt, Rufus	Cory	R
Hitchings, Mrs	Knightsville	A
Hughes, Ellen	Harmony	A
James, Oliver.	Cory	R
Modesitt. J. A	Cory	R
Morton, W. C. P	Cardonia	R
Morton, Rachel.	Cardonia	A
Morgan, B. B	Brazil.	R
Murth, E. R	Hoosierville	E
Newman, W. R	Bowling Green	R
Pell, G. M	Carbon	R
Price, J. M	Brazil.	R
Palmer, Laban	Knightsville	R
Payne, J. H.	Turner	R
Rundel, A. E	Center Point	R
Ray, Allen	Asherville	R
Stone, W. R	Poland	R
Smith, J. F	Brazil.	E
SPELLBRING, B. F	Knightsville	R
Siddons, J. O	Harmony	R
Siner, F. M	Asherville	R
Sanders, Barbara.	Hoosierville	A
Talbott, E. P	Bowling Green	R
Tulley, A. F	Brazil.	R
Thornton, F. G	Knightsville	R
Thomas, D O.	Knightsville	R
Vansandt, W. H	Carbon	R
Wolfe, C. H.	Clay City	R
Willigman, — —	Howesville	R
Williams, John.	Bowling Green	P. M
Zook, David	Saline City	R

Regular, 55; Eclectic, 3; Accoucheur, 4; P. M., 1

Clinton County.

Names.	*Post Office.*	*School.*
Abston, J. M	Michigantown	R
Adams, Jas. M	Frankfort.	R
Andrus, G. D	Forrest	R
Ballinger, J. A	Rickards Mills	R
Barnes, J. A	Michigantown	R
Brown, Geo. W	Frankfort.	R
Bogan, E. W	Kirklin	R
Bowers, Valentine	Michigantown	R
Campbell, M.R.	Middlefort	R
Canfield, M. S	Frankfort.	E
Chambers, W. B	Frankfort	H
Coble, A. H	Frankfort.	R
Coon, H. J	Colfax	R
Cooper, W. E	Rickards Mills	R
Cooper, W. T	Scircleville	R
Cripe, D. E	Frankfort.	E
Cox, Timothy B	Frankfort.	R
Davis, N. D.	Frankfort	H
Dearth, M. H.	Hillisburgh.	R
Deaner, John W	Hillisburgh.	R
Douglass, I. W	Michigantown	R
Douglass, Samuel	Killmore	R
Dunn, W.P.	Frankfort.	R
Earhart, J. S	Mulberry	R
Fall, W. D	Kirklin	R
Fisher, J. M	Rossville	R
Fisher, Samuel B.	Rossville	E
Gard, Oliver	Frankfort.	R
Gentry, W. A.	Forrest	R
Gentry, James M.	Frankfort.	R
Haggard, J. A	Sedalia	R
Hornaday, W. C	Forrest	R
Holmes, H. D.	Rickards Mills	R
Holmes, T. F	Rickards Mills	R
Holmes, J. H	Manson.	R
Holmes, A. T	Frankfort.	R
Holmes, W. A	Kirklin	R
Hunsinger, Eli	Frankfort.	E
Koons, M. T	Mulberry	R
Loftin, John	Frankfort.	R
Lewis, A. J	Frankfort.	R
Lowell, C E.	Frankfort.	—
Martin, M. L	Forrest	R
Motter, Theo. S.	Mulberry	R
Myers, John M	Kirklin	R
Millburn, Robt.	Colfax	R
Miller, Elijah	Sedalia	E
McMurray, James S	Frankfort.	R
Millburn, J. E	Colfax	R
McCorkle, T. H.	Kirklin.	—
McNutt, J. S	Jefferson	R
Morrison, A. J	Middlefork	R
McGuire, W. H	Frankfort.	E
Parker, Joseph	Colfax	R
PALMER, R. F	Frankfort.	R
Parks, S. H	Manson.	—
Pretzinger, J. K	Frankfort.	R
Randall, W. B	Hillisburgh	R
Robbins, C. W	Rickards Mills	R
Seawright, S. P.	Moran	R
Sayler, A. J.	Rossville	R
Strange, Wm	Frankfort.	R
Shaw, James W	Rossville	R
Smith, W. G	Scircleville	R
Schwinn, E. E	Kirklin	R
Sigler, J. N	Sedalia	R
Thorp, Levi.	Boyleston.	R
Vale, H. M	Colfax	R
Wade, T. H.	Mulberry	R
Wise, J. N	Frankfort	H
Wise, J. V	Frankfort	H
Wilson, M. W	Rossville	E
Wilson, A. M	Frankfort.	R
Young, M. V	Greetingsville	R
Youndt, A. M.	Mulberry	R

Regular, 61; Homeopathic, 4; Eclectic, 7; Not reported, 3.

Crawford County.

Anderson, J. W	Milltown	R
Anderson, Tobitha	Birdseye	A
Allen, Lydia	Magnolia	A
Bird, Elizabeth.	Leavenworth.	A
BAYLOR, GEO. W	Milltown	R
Bird, C. W	English.	R
Bobbitt, J. H	Wickliff.	R
Brown, G. W. L	Doolittle's Mills	R
Brown, S. L	Boston	R
Bullington, W. H	West Fork	R
Byrn, Spencer	Marengo	R
Bullington, Lewis M.	West Fork	R
Brackens, Mahala	Mt. Prospect	A
Bullington, Jane	Mifflin	A
Brown, Rebecca A	English.	A
Brown, Malinda	English.	A
Chambers, S. B. F	Marengo	E
Courtney, Thomas	Boston	R
Cole, W. H	English.	R
Cannavan, J. W	Boston	R
Daniel, William	Marengo	R
Dexter, Ansel	West Fork	R
Elliott, E. J	Leavenworth	A
Gobble, R.	Boston	R
Gobble, F. R	Grantsburg	R
Gibbs, J. H	Milltown	R
Gibson, Margaret	West Fork	A
Gray, Salina	Fredonia	A
Gasaway, Geo. M	Grantsburg.	R
Hammond, H. C	English.	R
Hughes, Mary A	Marengo	A
Holland, William	Milltown	R
Hazlewood, Jno	English.	R
Hehl, M	Milltown	A
House, Alzira	Milltown	A
Kelso, J. S. B.	Leavenworth	R
Kimes, Daniel	Leavenworth	E
King, N. W.	Tazwell.	R
Knight, J. B	Mt. Prospect	R
Luckett, C. D.	Boston	R
Murphy, L. H.	Alton	R
Merrilees, W. M.	Beechwood	H
Morgan, Margaret	Boston	A
Morgan, J. M.	Wickliff	R
McMahan, M. E	Mt. Prospect	A
Mills, Elizabeth	Milltown	A
Melcome, Frances	Magnolia	A
Osman, Daniel	Leavenworth	R
Peckenpaugh, Susan	Leavenworth	A
Pitman, C. S	Wickliff	R
Roberson, Emily	Grantsburg.	A
Rainforth, Mary	Leavenworth	A
Stewart, L. B	Marengo	H
Setser, H. H	Leavenworth	R
Sturm, Lida	Boston	A
Shaw, Bathsheba	Magnolia	A
Stewart, O. H.	Marengo	H
Shafer, Nancy	Leavenworth	A
Tucker, Annetta	Wickliff	A
Tarr, Jno. W	Birdseye	R
Vandiver, Joel	Mt. Prospect	R
VanWinkle, Mary	West Fork	A
Woodford, Elizabeth	Leavenworth	A
Walls, John W	Doolittle's Mills	R
Walton, Jas. P	Riceville	R

Regular, 34; Homeopathic, 3; Eclectic, 2; Accoucheur, 26.

Daviess County.

Names.	*Post Office.*	*School.*
Achor, J. M.	Cornettsville	R
Burris, Levi	Alfordsville	E
Bigham, A. W	Montgomery	R
Carter, D. R	Epsom	R
Calloway, Nancy	Washington	A
Chowning, Harriet	Washington	A
Chiles, Margaret	Scotland	A
Clark, Ira W	Epsom	E
Clark, J. W	Glendale	R
Clayton, Q	Montgomery	—
Culmer. S. O	Odon	R
Dearmin, John	Raglesville	R
Dagley, E. L	Washington	R
Eads, T. L	Washington	E
Evans, W. L	Loogootee	R
Fitzgibbon, John	Washington	R
Ford, A. W	Washington	R
Faith, A. H	Plainville	R
Gers, Henry	Washington	R
Harned, F. M.	Washington	R
Hedrick, J. T	Alfordsville	R
Hildebrand, Maria	Washington	A
Hobbs, W. P	Raglesville	R
Hasler, Lovey	Washington	A
Isham, Elizabeth	Glendale	A
Jones, W. S	Cumback	R
Kent, M. C	Odon	R
Lane, A. K	Odon	R
McKittrick	Plainville	R
Mitchell, John S	Alfordsville	R
Millis, E. D.	Plainville	R
Moore, J. L.	Washington	R

Names.	*Post Office.*	*School.*
Parks, J. F	Cumback	R
Plummer, T. K	Washington	A
Plummer, Kate	Washington	A
Perkins, Sarah	Cornettsville	A
Peck, S. W	Washington	R
Ray, Thos. G	Epsom	R
Ragsdale, M. H.	Glendale	R
Robinson, G. M.	Cannelburg	R
Riggin, E. A	Epsom	R
Sabin, A. L	Washington	E
Scudder, Charles	Washington	R
Scudder, J. A	Washington	R
SCUDDER, C. P	Washington	R
Scanlon, Michael	Washington	—
Sears, Barton	Owl Prairie	R
Sears, T. M	Owl Prairie	R
Smith, D. J	Odon	R
Strauss, W. H. H	Washington	H
Strauss, Magdaline.	Washington	A
Standley, L. H	Epsom	R
Steffey, J. P.	Washington	H
Taylor, J. S.	Raglesville	R
Taylor, Harvey	Raglesville	R
Tolliver, M. P	Owl Prairie	R
Trueblood, J. C.	Raglesville	R
Walker, G. W.	Cannelburg	R
Walls, W. B.	Alfordsville	R
Ward, Sina	Washington	A
Washington, S. A	Washington	A
Williford, W. C.	Montgomery	R
Williford, Geo. W.	Glendale	R

Regular, 43 ; Homeopathic, 2 ; Eclectic, 4 ; Accoucheur, 11 ; not stated, 2.

Dearborn County.

Bond, Richard C.	Aurora	R
Barkley, Marshall J.	Farmers Retreat	R
Bond, Edwin P.	Lawenceburg	R
Bowers, A. J.	Moore's Hill	R
Bond, Marc. L.	Aurora	R
Collins, L. J.	Guilford	R
Collins, L. H.	Lawrenceburg	R
Craig, T. E.	Manchester	R
Chamberlain, S. B.	Sparta	R
Daughters, A. P.	Moore's Hill	R
Dunn, W. H.	Wilmington	R
Fermier, Pierre	Weisburg	R
Gatch, James D.	Lawrenceburg	R
Harding, Myron H.	Lawrenceburg	R
Harryman, S. B.	Lawrenceburg	R
Haines, A. B.	Aurora	R
Heaton, C.	Moore's Hill	R
HENRY, W. C.	Aurora	R
Greer, L. H.	Aurora	R
Hayward, W. P.	Lawrenceburg	H
Kyle, T. M.	Manchester	R
Lord, Thom[illegible] J.	Dillsborough	E
Lamb, James	Aurora	R

Liddle, J. R.	Bright	R
Lazenby, J. R.	Bright	R
Miller, C. B.	Lawrenceburg	R
Miller, A. J.	Cold Springs	R
Minich, Barbara	Lawrenceburg	A
Rectanus, F.	Anna	R
Ratcliff, E. M.	New Alsace	R
Ratcliff, J. T.	New Alsace	R
Rosser, David	Moore's Hill	R
Sales, F. H.	Dillsborough	R
Sales, J. H.	Dillsborough	R
Sutton, H. H.	Aurora	R
Sutton, George	Aurora	R
Swales, W. H., Sr.	Logan	R
Swales, W. H., Jr.	Logan	R
Smith, T. C.	Aurora	R
Smith, Edwin	Aurora	H
Schrader, Judith	Lawrenceburg	A
Terrill, W. M.	Lawrenceburg	R
Treon, F.	Aurora	R
Vincent, H. C.	Guilford	R
Weaver, Samuel M.	Dillsborough	R
Walter, Carl G.	Lawrenceburgh	R

Regular, 42 ; Homeopathic, 2 ; Eclectic, 1 ; Accoucheur, 2.

Decatur County.

Alexander, J. H	Clifty	R
Armstrong, A	Adams	R
Ballard, D. J	St. Paul.	R
Beal, C. M	Clarksburg	R
Bracken, Wm	Greensburg	R
Bracken, James	Greensburg	R
Bobbitt, John L	Greensburg	R
Bunker, L. C	Greensburg	R

Cain, C	Clarksburg	R
Charlton, N. E	Forest Hill	R
Covert, C. A	Greensburg	R
Clark, Thos. J	Letts Corner	R
Crawford, Geo. S.	Clifty	R
Daily, F. M.	Millhausen	R
Depew, R. J	St. Paul.	R
Dowden, A. W	New Point	R

Decatur County—Continued.

Names.	*Post Office.*	*School.*
Falkenberry, M. G	Greensburg	E
Fitzpatrick, B	Clifty	R
Hause, Wm.	Westport	E
Hitt, J. Y	Greensburg	R
Hitt, S. B	Greensburg	R
Homsher, R. D	Greensburg	E
Howard, F. M	St. Paul	R
Johnson, Thos	Greensburg	R
Leatherman	Greensburg	H
Maguire, Samuel	Greensburg	H
McConnell, W	New Pennington	E
Miller, T. E. F	Clifty	H
Mobley, M. B.	Wintersville	—
Naderman	Millhausen	A
Parker, J. W	Adams	—
Pennington, Eli	New Point	—
Remy, A. S	Greensburg	R
Riley, W. F.	Sardinia	R
Riley, J. H. S.	Sardinia	R
Robbins, D K	Gaynorsville	—
Schofield, J. V	Harris City	R
Scobey, D. L	Greensburg	R
Smith, Mrs. L	Clifty	A
Snedeker, F. H	New Point	R
Swem, E. B.	Greensburg	R
Tevis, Joel T	St. Paul	R
THOMAS, R. M	Sandusky	R
Webb, W. H	Adams	R
White, B. S.	Letts Corner	R
Williams, M. H.	Sardinia	R
Wooden, J. L.	Greensburg	R
Wooden, W. H	Greensburg	R
Wright, S. V	Greensburg	R

Regular, 36; Homeopathic, 3; Eclectic, 4; not reported, 4.

Dekalb County.

Allen, W. S.	Auburn	R
Bennett, J. B.	Butler	R
Barnett, J. S	Butler	R
Bolan, M. J.	Butler	R
Bowman, H. W.	Blair	R
Brevier, Wm	Waterloo	E
Burns, Henrietta	Butler	A
Carpenter, W. P	Butler	R
Casebe[illegible] J. B	Auburn	R
Chamberlain, J. N	Waterloo	R
Cowan, John A.	Auburn	R
Darby, B. A	Waterloo	R
Emanuel, J.	Spencerville	R
Fanning, F. W	Butler	R
Farrington, A. S	Waterloo	R
Fierstone, J. L	Butler	R
Ford, J. H	Auburn	R
Fosdick, E. L.	Butler	R
Greenwald, M	Auburn Junction	R
Houghton, Lloyd	Spencerville	R
Hull, Jacob	Spencerville	R
Kenestric, J. D	Butler	R
Kester, A. A	Garrett	H
Kester, R. S	Butler	H
Kiser, S. J	Butler	H
Lawrence, J. W	Newville	R
Lewis, Jas. V	Auburn	R
Lilly, H.	Butler	H
Littlefield, J. J	Auburn	R
Madden, W. H	Butler	R
Matheny, T. G	Auburn	R
Mercer, W. M	Corunna	R
Miller, Jonathan	Butler	R
Nusbaum, W. S	Corunna	R
Roether, D B	Garrett	R
Rudolph, Oswald	Fairfield Center	R
Sehring, D. A.	Auburn	R
Sheffer, B. S	Blair	R
Shepard, Z. W	Waterloo	H
Snyder, F.	Corunna	R
Stewart, T. H.	Garrett	E
Stough, Solomon	Waterloo	R
SWARTS, D. J.	Auburn	R
Swarts, Vesta M. W	Auburn	R
Thomson, J. F	Garrett	R
Ward, A. A.	Waterloo	R
Ward, U. I	Newville	R

Regular, 43; Homeopathic, 1; Eclectic, 2; Accoucheur, 1.

Delaware County.

Ames, Geo. F.	Eaton	R
Armitage, D. R.	Muncie	R
BRADBURY, A. B	Muncie	R
Boyden, W. J.	Muncie	R
Bowles, T. J	Muncie	R
Baird, J. V	Albany	E
Bryson, W. A.	Cowan	—
Bunch, R. A	Desoto	E
Cotterel, D. V	Muncie	R
Clemmens, W. T	New Corner	—
Cornelius, W. W	Daleville	—
Comstock, J. S. D	Cowan	R
Day, B. F.	Harrison	R
Ducket, Mary E	Harrison	A
Downing, J. R	Reeds	R
Eastus, W T	Wheeling	R
Flinn, Mary	Shideler	A
Follis, A. L	Reeds	P-M
Green, Geo. R	Royerton	R
Good, A. H	Selma	R
Hayden, J. H	Harrison	P-M
Jump, S. V	New Burlington	R
James, M.	Muncie	R
Jones, Mrs. A. F	Yorkto[illegible]	A
Kemper, G. W. H	Muncie	R
Kennedy, E. C	Muncie	R
LeFavor, James	Albany	—
Martin, J. J	Muncie	H
Martin, Simon	Daleville	R
Munsey, D. O.	New Corner	R
Marshall, R	Cowan	R
Mitchell, H.	Muncie	R
Murray, A. P	Albany	R
Murray, A. L.	Eaton	R
McConnell, Martha	Muncie	A
Phinney, A. J	Muncie	H
Pucket, E. J	Muncie	R
Polk, Mary	Muncie	A
Phelpatt, L. W	New Corner	—
Pierce, W. O	Muncie	—

Delaware County—Continued.

Names.	*Post Office.*	*School.*
Plummer, Amanda J.	Yorktown	A
Reasoner, O. I	Shideler	R
Ricks, M. W	Muncie	P-M
Ross, J. C.	Muncie	E
Skiff, Clark.	Selma.	R
Snodgrass, B. D	Reeds	P-M
Stiers, F. R.	Muncie	P-M
Smith, Chas. W.	Muncie	R
Spann, Geo. W	Yorktown.	R
Schaub, D	Muncie.	—
Snell, S. R	Muncie	E
Shively, D. M	Yorktown	P-M
Slack, Geo. W	Yorktown	R
Shields, E. A	Muncie	R
Spurgeon, Wm. A	Muncie	P-M
Shidler, J. K	Muncie	E
Summers, H. C.	Daleville	R
Shriver, Elizabeth	Muncie	A
Trowbridge, D. M.	Muncie	E
Tuttle, John	Wheeling	R
Winton, R.	Muncie	R
Winans, H. M.	Muncie	R
Youngs, R. F.	Eaton	E

Regular, 33; Eclectic, 7; Homeopathic, 2; P. M, 7; Accoucheur, 7; not reported, 7.

Dubois County.

Alpers, Amelia	Huntingburgh	A
Alles, Jacobina	Celestine	A
Blackwell, Garrett B.	Huntingburgh	E
Bockholt, Joseph	Ferdinand	—
Braunecker, Francis	St. Henry	A
Clipperd, J	Holland	E
Cook, Mary E.	Ireland	A
De Motte, William M.	Haysville	R
Decker, Sarah	Hickory Grove	A
Faulkner, Joseph F.	Birdseye	R
Fouts, David C.	Birdseye	R
Fromm, Anna M.	Celestine	A
Glezen, Edward A.	Ireland	R
Gutyesell, Frederica	Jasper	A
Goble, Margaret	Huntingburgh	A
Gobble, F.	Birdseye	R
Hunter, Walter M.	Porterville	R
Harris, Hester	Hillham	A
Helton, Mary	Ellsworth	A
Johnson, Robert B.	Celestine	E
Kempf, E. J	Ferdinand	R
Kempf, Paul H.	Ferdinand	R
Kene, Catharine	Celestine	A
Line, William A.	Hillham.	—
Lampe, Catharine	Ferdinand	A
Mathias, Elizabeth	Celestine	A
Mann, Catharine	Portersville	A
Meyer, Margaretha	Hickory Grove	A
McMahan, Wm. R.	Huntingburgh	R
McCown, Chas. C.	Ireland	R
Montgomery, G. B.	Huntingburgh	R
Newland, Chas. W.	Hillham	R
Newton, Rebecca	Birdseye	A
Nordhoff, Theresa		A
Parr, G. L.	Ireland	R
Potson, Thomas, Sr.	Dubois	—
Rinderer, Sophia	Huntingburgh	A
Rust, H.	Holland.	—
Rudolph, Elizabeth	Porterville	A
Reeves, R. B.	Kellersville	R
Salb, Jno. P.	Schnellville	R
Schrieder, Jno.	St. Anthony	R
Schwartz, C. W.	Huntingburgh	R
Scheliha, P. W.	Huntingburgh	P.M
Stork, H. W.	Holland	R
Stephenson, E	Jasper	—
Striegle, Elizabeth	Celestine	A
Snyder, Elizabeth	Ferdinand	A
Walker, Geo. W.	Ellsworth.	—
Wenemann, R. T.	Ferdinand	—
Wertz, Toliver	Jasper	R
Walderip, Henry	Knoxville	R
Williams, G. P.	Huntingburgh	R
Woelker, Charles	Huntingburg.	—
Wersing, Agnes	Schnellville	A
Wigand, Doreda	Celestine	A
WELLS, WM. H.	Jasper	R

Regular, 20; Eclectic, 4; N. R., 9; Accoucheur, 23.

Elkhart County.

Aldrich, Charles A	Middlebury.	R
Aitkins, Frederick M.	Bristol	R
Baker, D. W	Benton	R
Bower, C. C.	Bristol	R
Bowser, J. M	Nappanee	R
Broaderick, Chas. S	New Paris	R
Benham, F. A	Elkhart.	H
Butts, Susan	Goshen	A
Congdon, J. R	Bristol	R
Corns, Charles V	Benton	R
Crockett, James A	Elkhart	H
Cassell, Lizzie	Elkhart.	R
Coover, W. A	Goshen	R
Cornell, F. M	Goshen	E
Conrady, C. A	Elkhart.	E
Calp, Mrs. S	Wakarusa	A
Custer, Rebecca	Goshen	A
Crum, L. P	Middlebury.	R
Dodge, James S	Bristol	R
Day, Luella.	Goshen	R
Drees, Chas. L	Goshen	R
Depeller, R	Goshen	—
Elmore, J. O	Vistula	R
Eisenheiss, Samuel.	New Paris	R
Eckleman, F. C	Elkhart.	R
Fisher, W. H	Elkhart	H
Funk, Susan	Elkhart	H
Frink, C. S	Elkhart.	R
Hani, W. F	Middlebury.	R
Hatch, O W	Elkhart.	H
Harrington, O. B	Elkhart.	R
Haggerty, R. Q	Elkhart.	R

Elkhart County—Continued.

Names.	*Post Office,*	*School.*	*Names.*	*Post Office.*	*School.*
Hendry, T. B	Elkhart.	R	Myers, J. G	Goshen	R
Harding, P. D	Goshen	R	Murken, G. F.	Middlebury.	E
Heatwole, Joseph H	Goshen	R	Neal, W. A	Elkhart.	R
Horton, J	Elkhart.	E	Putt, F. L.	Middlebury.	R
Heatwole, Joseph, Sr.	Goshen	E	Pixley, C. S.	Elkhart.	R
Herring, F	Goshen	P.-M	Shepard, L	New Paris	P.-M
Inks, John	Wakarusa	R	Sweetland, Frank	Elkhart.	R
Irwin, A. J	Goshen	R	Sparklin, C. C	Goshen	R
Johnson, W. W.	Goshen	R	Sensenich, A. R	Wakarusa	R
Jennings, J. W	Millersburgh	R	Stauffer, H. R.	Nappanee.	R
Knepple, W. H	Wakarusa	R	Stauffer, W. O	Nappanee.	R
Krider, M. K	Goshen	H	Swartz, C. H	Nappanee.	R
Krider, Will B	Goshen	H	Sutton, Mrs.	Goshen	A
Kelley, F. L	Millersburgh	R	Stuckman, Martin	Nappanee.	R
Knowles, G. F	Bristol	R	Todd, Lorina	Wakarusa	A
Lambert, C. A	Goshen	R	Thomas, W. H	Elkhart.	H
Larigone, Lorenia	Elkhart.	A	Work, J. A	Elkhart.	R
LATTA, M. M	Goshen	R	Whitmer, B. F	Goshen	R
Latta, W. J	Goshen	R	Woodcox, Wilson	Millersburgh	R
Matthews, Jas. A.	New Paris	R	Whippey, W. A.	Goshen	H
Miles, F. L	Elkhart.	R	Wickham, W. W	Goshen	E
McFaggeth, R	Elkhart.	R	Witt, Mary	Goshen	A
Miller, D. L	Goshen	R	Zimmerman, Ann	Elkhart.	A

Regular, 52; Homeopathic, 9; Eclectic, 6; Phisio-Medical, 2; Accoucheur, 8; Not reported, 1.

Fayette County.

Butler, D. W	Connersville	R	Sipe, R. W	Orange	R
Chitwood, Frank	Connersville	R	Orr, J. P.	Glenwood	R
Chitwood, Jno. E.	Connersville	R	Shepard, S. D.	Everton.	R
Chitwood, Joshua.	Connersville	R	Tingley, W. B.	Harrisburg	R
Chitwood, Geo. R.	Connersville	R	Turner, John	Null's Mills	E
Dailey, Jesse	Orange	R	Tyrell, A. D	Connersville	E
Derbyshire, E.	Bentonville.	R	Vance, S. W	Connersville	R
DILLMAN, L. D.	Connersville	R	Vannuys, D. H.	Falmouth.	R
Ellis, E. W	Falmouth	P.-M	Wall, Jno.	Connersville	R
Elliott, H. H	Glenwood.	R	Wall, Fred	Connersville	R
Gregg, V. H.	Connersville	R	Wyman, Chas.	Lyon's Station	R
Hamilton, S. M	Connersville	R	Wyman, Chas. P	Everton.	R
Larimore, J. D	Connersville	R	Webster, Elias	Connersville	H
Pepper, W. J	Connersville	R	Pharres, O. P	Alquina.	R
Rawls, M. W	Connersville	R	Smolly	Connersville	R

Regular, 26; Homeopathic, 1; Eclectic, 2; P.-M., 1.

Floyd County.

Alexander, S. J.	New Albany	R	Lemon, J. H	New Albany	R
Burney, W. A.	New Albany	R	McIntyre, C. W.	New Albany	R
Brigham, R. S	New Albany	H	Moore, Eliza J	Mooresville	A
Bowman, Charles.	New Albany	R	Neat, A	New Albany	R
Beust, B.	New Albany	R	Neat, Thomas C	New Albany	R
Bruder, Mary A.	New Albany	A	Needham, Hugh	New Albany	H
Cook, Charles P	New Albany	R	Rutherford, R. S	Galena	R
Cannon, George H	New Albany	R	Sloan, John.	New Albany	R
Clapp, William A.	New Albany	R	Schmidt, Susan.	New Albany	A
Davis, J. M	Greenville	R	Starr, W. L	New Albany	R
Dempster, Ellen	New Albany	A	STEWART, J. L	New Albany	R
Easley, E. R	New Albany	R	Smith, R. C.	Greenville	E
Gray, Agnes	New Albany	A	Tucker, Abigail.	New Albany	A
Knoefel, R. C	New Albany	R	Tucker, W. W.	Georgetown.	R
Kay, Robert	Greenville	R	Taggart, W. J.	Galena	R
Lung, H. B	New Albany	R	Wilcox, S. C	New Albany	R
Levi, L. D	Georgetown.	R	Williams, W. R.	Greenville	R

Regular, 24; Homeopathic, 2; Eclectic, 1; Not stated, 6.

Fountain County.

Names.	*Post Office.*	*School.*	*Names.*	*Post Office.*	*School.*
Austin, C. B.	Veedersburg	R	Orahood, Job	Snoddy's Mills	R
Armstrong, Lewis P	Newtown	R	Petitt, Marshall	Veedersburg	R
Burlington, Jas. C	Attica	E	Patterson, W. P	Snoddy's Mills	R
Cole, W. C.	Attica	R	Quinn, J. W	Fountain	R
Case, M. T	Attica	R	Riffle, John S	Newtown	R
Cooper, Silas C	Fountain	—	Rowland, Geo	Covington	R
Coggins, C. M.	Snoddy's Mills	R	Richardson, A. G.	Veedersburg	—
Downing, Samuel G	Riverside	—	Rupert, Archie	Attica	R
Davidson, Frank	Wallace	R	Rice, John T	Attica	R
Dowden, James W	Yeddo	E	Spining, J. N	Covington	R
Fine, E. M	Steam Corner	R	Sharples, M. F	Stone Bluff	—
Finney, Charles J.	Attica	—	Sparks, J. T	Yeddo	R
Flowers, W. T	Yeddo	—	Stout, W. R.	Hillsboro	R
Goodwin, Goldsmith	Veedersburg	E	Shoof F. A	Yeddo	R
Hays, Geo. C	Hillsboro	R	Talbot, Jesse N.	Wallace	R
Johnson, C. S.	Harveysburg	R	Thomas, Dawn R	Harveysburg.	—
Jones, Geo. S.	Covington	R	Whitehall, S. P	Attica	E
Keen, D. P	Attica	—	Whitehall, Alex	Attica	E
Livengood. J. A	Wallace	—	Washburn, —	Attica	R
MOCK, J. W.	Covington	R	Watson, C. D	Covington	R
Moore, P. B.	Harveysburg	R	Wilson, W. L.	Attica	R
McClelland, A. J	Veedersburg	R	Williams, —	Attica	—
McNeil, Scott	Stone Bluff	R	Young, F. B.	Veedersburg	R

Regular, 31; Eclectic, 5; not reported, 10.

Franklin County.

Averdick, H. G.	Oldenburgh	R	Jenkins	Mt. Carmel	R
Berry, George	Brookville	R	Linegor, D. B.	Whitcomb	E
Berry, William	Brookville	R	Maddaux, D. S.	Whitcomb	R
BUCKINGHAM, G. B.	Brookville	R	Mann, E. L.	Oldenburgh	R
Colescott, Thomas	Brookville	R	Morgan, J. O.	Springfield	R
Conner, T. H.	Metamora	R	McCarty, T. J.	Brookville	R
Cupp, M. L.	Metamora	R	McGuire	Metamora	R
Davis, Wm. H.	Mt. Carmel	R	Owens, R. L.	Cedar Grove	R
Ford, Thos. J.	Laurel	R	Patterson, T. L.	Laurel	R
Gifford, Thos., Sr.	Laurel	R	Quick, J. H.	Brookville	R
Gifford, Thos., Jr.	Laurel	R	Reales, Frank	Whitcomb	E
Graham, E. G.	Brookville	R	Schum, Charles	St. Peters	R
Haymond, R	Brookville	R	Squire, George	Brookville	E
Hendricks, J. L.	Fairfield	R			

Regular, 24; Eclectic, 3.

Fulton County.

Brown, Agnus	Rochester	H	Johnston, Aaron	Akron	R
Clymer, J. C.	Bloomingsburg.	E	Loring, C. J.	Rochester	R
Campbell, Edward	Marshtown	R	Morris, J. M.	Fulton	R
Calvin, Geo. E.	Kewanna	E	Robbins, A. H.	Rochester	R
Clealand, W. T.	Kewanna	R	Rhoads, James	Bigfoot	E
Dake, J. T.	Tiosa	R	Ramels, Jacob	Rochester	E
Fish, James	Bloomingsburg	E	Shafer, W. S.	Rochester	E
Gould, Vernon	Rochester	R	SHIELDS, A. M.	Rochester	R
Gould, Chas.	Rochester	R	Spohn, J. C.	Rochester	R
Hill, Wm.	Rochester	E	Towey, A. S.	Marshtown	R
Hector, Cornelius	Rochester	E	Thompson, D.	Kewanna	R
Hector, Frank	Rochester	E	Wait, O. P.	Rochester	R
Howell, J. Q.	Kewanna	R	Wyson, A. B.	Grant	R
Harter, C. F.	Akron	R			

Regular, 17; Eclectic, 9; Homeopathic, 1.

Gibson County.

Names.	*Post Office.*	*School.*
BURTON, A. R	Princeton	R
Burton, Hiram	Somerville	R
Blair, W. W	Princeton	R
Ballard, S. H	Haubstadt	R
Brown, T. M	Oakland City	R
Blair, Frank	Princeton	R
Clark, John Q.	Owensville	R
Curtner, Paul H	Hazleton	R
Duncan, W. B	Patoka	R
Fisher, Geo. C	Patoka	R
French, W. W	Fort Branch	R
Fleckenstine, Rosalia	Haubstadt	A
Gudgel, J. F	Hazleton	R
Genung, W. R	Fort Branch	R
Hudson, O. L.	Princeton	H
Hopkins, W. G	Fort Branch	R
Ireland, J. M.	Francisco	R
Kendle, G. C	Princeton	R
Kidd, W. G.	Princeton	R
Lehman, J. L.	Patoka	E
Lester, W. L	Oakland City	E
Littlepage, G. C	Warrenton	R
Moore, Robert	Somerville	R
Malone, J. A	Princeton	R
Munford, S. E	Princeton	R
Maxam, F. H.	Princeton	R
Montgomery, T. J	Owensville	R
Mason, G. C	Oakland City	R
McGowen, W. J	Oakland City	R
Marchant, V. H	Haubstadt	R
McGowen, J. W	Oakland City	R
McFadden, J. C	Griffin	U
Nelson, F.	Hazleton	R
Ottmann, Peter		U
Powell, D. G	Princeton	R
Patten, J. C	Francisco	R
Pettijean, Thersia	Haubstadt	A
Runcie, John W	Fort Branch	R
Runcie, Geo. W	Fort Branch	R
Reavis, D. P	Francisco	R
Shoptaugh, S. H	Princeton	R
Stott, John	Princeton	R
Shoemaker, D. M.	Owensville	E
Sears, G. M.	Patoka	R
Shelton, J. W.	Somerville	E
Stewart, W. H	Oakland City	R
Strickland, Geo	Francisco	R
Thomas, G. A	Haubstadt	R
West, V. T	Princeton	R
Ward, J. P	Princeton	R
Williams, J. M	Owensville	E
Woodruff, A. C	Somerville	R
Wolf, Mrs. Geo	Princeton	A
Williamson, W. T	Fort Branch	E

Regular, 54; Homeopathic, 1; Eclectic, 6.

Grant County.

Achar, George R.	Marion	P.-M
Adkins, Jno. C.	Marion	R
Ardery, Oscar	New Cumberland	R
Baldwin, Mahlon	Marion	E
Barnes, Robert	Marion	—
Barnes, Eleanor V	Marion	—
Barnes, W. C.	Mier	R
Bantham, L. G.	Marion	P.-M
Bradley, H	Marion	P.-M
Carey, Isaac	Marion	E
Caylor, D. S.	Rigdon	R
Conwell, L. V.	Vanburen	R
Cook, F. S.	Herbst	E
Corey, Lavanner	Vanburen	R
Corey, L. J.	Vanburen	R
Coralt, E. D.	Swayzee	R
Cowgill, Nathan	Marion	P.-M
Daniels, G. W.	Marion	R
Dunfee, Joseph	Normal	P.-M
Eberle, Jno. P.	Marion	P.-M
Eberle, C. A.	Marion	P.-M
Egbert, George	Marion	R
Fallis, A. L.	Fairmont	—
Fisher, Erastus	Upland	R
FLYNN, WM.	Marion	R
Forrest, J. H.	Marion	E
Hall, Jno. W.	Sweetzer's	R
Hamilton, A. A.	Marion	R
Hanmore, J. J.	Jalapa	R
Harvey, Jno.	Jonesboro	E
Henley, Alpheus	Fairmont	R
Hess, L. P.	Marion	R
Home, Samuel	Jonesboro	R
Hollis, Samuel	Upland	R
Hubbard, W. H.	Fairmont	R
Jackson, L. M.	Jonesboro	R
Jones, Enoch	Marion	H
Jones, Charles	Jonesboro	E
Knight, Jno. C.	Jonesboro	R
Langston, Edgar	Point Isabel	R
Lennox, Frank	Swayzee	R
Lomax, William	Marion	R
Lord, J. L.	Point Isabel	R
Meek, Jno. A.	Jonesboro	R
Mock, J. F.		—
Moon, Allen	Fairmont	P.-M
Moore, Chas. V.	Fairmont	R
Moore, Stephen W.	Marion	E
Morris, G. P.	Jadden	R
McKinney, Geo. W.	Jonesboro	R
Nuzum, D. P.	Normal	H
Pugh, Jno. W.	Vanburen	P.-M
Reasoner, Harmon D.	Marion	R
Scott, Edwin	Normal	E
Sellars, Jno.	Rigdon	—
Seal, Issac A.	Hackleman	R
Shively, Jas. S.	Marion	R
Shively, M. T.	Marion	R
Small, Noah	Jonesboro	—
Snodgrass, D. B.	Marion	P.-M
Snodgrass, M. C.	Marion	P.-M
Stephens, A. B.	Marion	P.-M
Stout, Orlando L.	Upland	R
Wall, M. M.	Marion	H
Weddington, S. C.	Jonesboro	R
Wharton, W. L.	New Cumberland	R
Whitson, Eli M.	Jonesboro	R
Williams, Lewis	Marion	R
Williamson, P. E.	Sweetzer's	R
Wright, M. K.	Marion	P.-M
Wright, P. H.	Fairmont	E
Wright, George	Fairmont	—

Regular, 40; Homeopathic, 3; Eclectic, 9; P.-M., 13; Not reported, 7.

Greene County.

Names.	*Post Office.*	*School.*	*Names.*	*Post Office.*	*School.*
Arnold, J. G	Lyons	R	Kelsheimer, Mary	Worthington	A
Acton, W. G	Elvan.	E	Lowder, H. R.	Bloomfield	R
Aydelotte, Thomas.	Worthington	R	Landis, D. F	Hobbieville	E
Asbury, Wm. H. H	Jasonville	R	Mullane, Joseph	Lyons	R
Burk, W. H.	Scotland	R	Mullinix, L. P	Worthington	E
Bridwell, Lafayette	Owensburg	R	Morgan, E	Right	R
Burge, M. C	Park	R	McIntosh, ——	Newark.	E
Bennefiel, R. A. J	Marco.	R	McDowell, W. H	Hobbieville.	R
Cravens, S. C	Bloomfield	R	Norvell, H. V	Bloomfield	R
Cole, Willis H	Switz City	R	O'Neal, W. A	Newberry.	E
Clary, H. T	Worthington	E	Powell, Anna M	Marco	A
Connell, Samuel L	Rockford	R	Rankin, T. B	Bloomfield	R
Cook, Peter M	Solsberry	R	Roberts, E. J	Worthington	R
Durment, C. R	Newberry	R	Roberts, E. S	Worthington	R
Dilley, L. H	Linton	E	Rose, B. A	Linton	R
Dixon, Mary J	Dixon	A	Royal, Sarah	Park	A
Gray, John W.	Bloomfield	R	Simms, James A	Newberry	R
GRAY, SIMEON.	Worthington	R	Stone, J. A. M	Switz City	—
Greene, W. L.	Worthington	E	Shanklin, John R	Jasonville	R
Gambille, Nancy	Bateham	A	Smydth, W. C	Worthington	R
Hilborn, E. W	Newberry	R	Squire, W. B	Worthington	E
Hanna, Jesse	Linton	E	Spencer, J. D	Switz City	—
Hannan, John W	Scotland	R	Sherwood, E, T	Linton	R
Herald, Henry	Owensburg	E	Seffridge, W. R	Worthington	R
Hendron, L. C	Marco	—	Talbott, James E.	Marco	R
Harrah, John M	Switz City	R	Wilson, W. L.	Switz City	R
Hanna, Joseph T	Bateham	—	Wood, J. E	Newark.	E
Hixon, W. H	Newark.	R	Williams, N. W	Owensburg	R
Jackson, E. J.	Linton	R	Wells, Sarah J	Solsberry	A
Kutch, John	Solsberry	R			

Regular, 37 ; Eclectic, 12 ; Accoucheur, 6 ; not reported, 4.

Hamilton County.

Applegate, A J	Eagletown	R	Kitchel, J. S	Noblesville.	H
Austin, E. P	Noblesville	E	Loehr, E. C.	Noblesville.	R
Benson, J. L	Noblesville.	R	Loder, C. C	Horton	H
BOOTH, A. D.	Noblesville.	R	Loder, Jennie	Horton	H
Barber, J. M	Arcadia.	R	Lamb, E	Fortsville.	R
Beatley, Jacob	Fishers	R	Lewis, T. J.	Cicero	—
Baker, J. J	Westfield	P.-M	Leavens, A. D. W	Carmel	P.-M
Byers, J. S	Noblesville	P.-M	Miessee, A	Noblesville.	R
Conner, W. H.	New Britton	R	Moore, Henry.	Sheridan	R
Coffin, B. F	Westfield	P.-M	Miesse, D. D	Noblesville.	E
Carey, Daniel.	Carmel	P.-M	Moore, G. B.	Omega	R
Cook, C. W	Carmel	P.-M	Murphy, J. M.	Clarksville	R
Canada, James L.	Olio.	R	McMurty, T. J	Boxley	R
Davenport, H. E	Sheridan	R	McShane, T. J	Carmel	R
Davenport, J. W	Sheridan	R	Newby, John C.	Boxley	R
Dove, S. C.	Westfield	R	Orr. C. M	Cicero.	R
Dunn, J. R	Boxley	R	Pettijohn, O. B	Deming.	R
Driver, J. C.	Shielville.	R	Parr, J. N.	Joliettville	R
Esken, H T	Eagletown	R	Pettijohn, J. B	Westfield	R
Fancher, J. W	Sheridan	R	Pettijohn, Amos	Arcadia.	R
Graham, W. B	Noblesville.	R	Rhodes, Anna	Shielville.	R
Gray, J. M	Noblesville.	R	Smith, T. J	Strawtown	R
Griffin, Robert I	Deming.	R	Stout, H. H	Cicero.	R
Glass, W. I	Shielville.	R	Smith, D	Noblesville.	H
Hawort, M. C	Noblesville.	R	Starchman, Lewis	Arcadia.	R
Herr, H. S	Westfield	P.-M	Sanders, J. M.	Cicero.	R
Heath, J. P	Fishers	R	Tucker, A. R	Cicero.	R
Hobson, Joice F	Noblesville.	E	Whitesell, P. P	Clarksville	R
Houser, J. A	Arcadia.	R	Warford, F. M	Cicero.	R
Harold, N. G.	Carmel	R	Williams, W. W	Noblesville.	R
Hershey, K C	Carmel	R	White, T. A.	Noblesville.	R
Hunt, E. A	Carmel	P.-M	Warman, A. J	Shielville.	R

Regular, 48 ; Homeopathic, 4 ; Eclectic, 3 ; Physio-Medical, 8 ; Not reported, 1.

Hancock County.

Names.	*Post Office.*	*School.*
Adams, M. M	Greenfield	R
Allen, Belzina	Westland	A
Bradway, C. F	Palestine	R
BOOTS, SAMUEL S	Greenfield	E
Buchel, Jacob	Palestine	R
Carr, O. C.	Maxwell	E
Cory, John D	McCordsville	R
Cox, W. B.	Charlottsville.	E
Coffin, O. S	Greenfield.	E
Carter, L. A	Charlottsville.	R
Edwards, O. M	Greenfield	U
Ely, L. C	Palestine	R
Ewbanks, G. C	Philadelphia	R
Graham, W. B	Charlottsville.	R
Garret, O. M	Warrington.	U
Howard, N. P., sr.	Greenfield	R
Howard, N. P., jr.	Greenfield	R
Hammer, T. B	Charlottsville	P.-M
Hammer, J	Willow Branch	P.-M
Hanna, R. D	Warrington.	R
Hall, J. A.	Greenfield.	E
Hess, M. M	Cleveland.	R
Hervey, Thos. P.	McCordsville	R
Hervey, F. F	Maxwell	R
Judkins, E. I.	Greenfield.	R
Justice, W. A.	Eden	R
Justice,	Eden	R
Julian, J. P.	Warrington	P.-M
King, W. R	Philadelphia	R
Kirkhoff, C. H.	Palestine	R
Larimore, J. M.	Carolton	U
Martin, S. M	Greenfield	R
Pratt, C. C.	Milner's Corners	U
Ryan, W. B	Willow Branch	U
Stuart, J. G	Fortville	R
Stewart. L. C	Wilkinson	E
Saunders, J. K	Fortville	U
Trees, William	Warrington.	R
True, B. F.	Palestine	U
Troy, S. A.	Milner's Corners	R
Trump, J. F.	Westland	R
Wray, Mary J.	Cumberland	A
Yancey, S. T	Fortville	R

Regular, 24; Eclectic, 7; P.-M., 3; Accoucheur, 2; Not reported, 6.

Harrison County.

Names.	*Post Office.*	*School.*
Askren, Cort. F.	Moberly	R
Bennett, W. H	New Amsterdam	R
Borden, Elizabeth	Sharp's Mills	A
Bines, Lucinda	Locust Point	A
Black, Matilda	Elizabeth.	A
Bowman, Catharine	Laconia.	A
Clarke, Jacob C	Corydon	R
Cole, John A	Palmyra	R
Curry, John	Mauckport	R
Carroll, Sarah	Laconia	A
Cline, America	Corydon	A
Cunningham, Jane	Valley City	A
Cook, Catharine	Milltown	A
Cousins, Cynthia	Crisp's Cross Roads.	A
DeBruler, O. E	Valley City	R
Deen, H. K	Central	R
Davis, William H	New Middletown	R
Denbo, William	Crisp's Cross Roads.	R
Ellis, Joseph	Bradford	R
Fisher, D. S.	Valley City	R
Finley, John F	Palmyra	R
Fouts, H. C	Lanesville	R
Fouts, Noah	New Salisbury	R
Funkhouser, Wm. H	Corydon	R
Grutz, Annette	Frenchtown	A
Hays, D. W	Central	R
Horner, Jacob S	Lanesville	R
Kandie, William A	Laconia.	R
LAWSON, JOHN E.	Corydon	R
LaFollette, Wm. P	New Salisbury	R
Mitchum, Lyttleton	Crisp's Cross Roads	R
Moore, William	Rosewood.	R
McCormick, Eliza E	Rosewood.	A
Neely, Isaac L	Idlewild	R
Parker, Mary	Crisp's Cross Roads.	A
Patterson, R. W	Corydon	R
Reader, William	Corydon	R
Reader, William H	New Amsterdam	R
Rosenbarger, Rosanna	Corydon	A
Robinson, Elizabeth	Laconia.	A
Smith, Alma E. L	Corydon	R
Smith, Alvin E	Cedarwood	R
Smith, Samuel A	Laconia.	R
Smith, James I	New Middletown.	R
Sigler, R. R	Ramsey.	R
Wolfe, S. C	Elizabeth	R
Wolfe, H. S	Corydon	R
Wolfe, L. O. P	Mauckport	R
Winders, Lyman C	New Middletown.	R
Zenor, Jerry	New Middletown.	R

Regular, 35; Accoucheur, 14.

Hendricks County.

Names.	*Post Office.*	*School.*
Adams, Thos. J.	North Salem	R
Barker, Joel T	Brownsburg	R
Broadhurst, John	North Salem	E
Brent, Isaac N	Pittsboro	R
Bartholomew, B	Danville	R
Brooks, M. W	Hazlewood	R
Bray, Lot. T	Clayton	E
Brill, Jas. H	Pittsboro	R
Brazier, S. S	New Manchester	R
Burk, T. P	Lizton	R
Cloud, C. F. C	Pittsboro	R
Cloud, R. E.	Pittsboro	R
Carter, Amos	Plainfield	R
Davidson, A. M	Brownsburg	R
Dryden, Thos. F	Clayton	R
Depew, M. F	Danville	R
Dewees, Leslie	Joppa.	R
Evans, Thos	Plainfield.	R
Farabee, C. E.	Danville	R
French, John.	Pittsboro	R
Graham, Thos. A	Brownsburg	R
Green, J. N.	Stilesville	R
Gilbert, A. K	Clayton.	R
Gullifer, T. B.	Plainfield	H
Grimes, W. T.	Mount Clair	R
Hoadley, Wm. J	Danville	R
House, G. H. F	Pecksburg	R
Heady, ——	North Salem	R

Hendricks County—Continued.

Names.	*Post Office.*	*School.*
Heavenridge, Allen	Stilesville	R
Hunt, Tighlman	Coatsville	R
Hunt, Stephen	Coatsville	R
Huron, F. H	Danville	H
Hiatt, L. J	Planfield	R
Hamlin, Sam E.	Cartersburg	R
Johnson, T. W	Danville	H
Johnson, O. B	Lizton	R
Kennedy, L. H	Danville	R
Lewis, Robert	Plainfield	R
Lawson, Wilson T	Danville	R
Lind, G. Dallas	Danville	P.-M
Masters, N. G	Stilesville	R
Moore, R. C.	Belleville	R
Margan, Abraham	Cartersburg	E
Marsh, John L	Brownsburg	E
Mitchell, Lucretia	Danville	A
Osborn, John A	Stilesville	R
Parker, M. G	Danville	R
Ragan, John I	Avon	R
Roberts, John D	North Salem	E
Reagan, Jesse	Plainfield	R
Smith, F. W	Plainfield	R
Summers, H. C	Amo	R
Stung, A. M	Belleville	R
Strong, John T	Plainfield	R
Snowden, Jesse	Maplewood	R
Todd, H. G	Danville	R
Towles, A. N	Danville	R
WHITE, CHAS. A.	Danville	R
White, W. H	Amo	R

Regular, 49; Eclectic, 5; Homeopathic, 3; Physio-Medical, 1.

Henry County.

Anderson, John T	Honey Creek	R
Barrett, O. H	Greensboro	R
Baily, G. D	Spiceland	R
BURK, G. W	New Castle	R
Boor, W. A	New Castle	R
Boor, W. F	New Castle	R
Benedict, H	Springport	R
Bolinger, S. P	Middletown	R
Bartlett, W. M	Lewisville	R
Bond, C. W	Cadiz	R
Bartlett, C. G.	Dunreith	R
Bowie, T. C.	Greensboro	E
Bartlett, S. C	Lewisville	R
Crouse, Henry M	Knightstown	R
Craighead, R. D	Knightstown	R
Cochran, Jas	Spiceland	R
Cole, John A	Knightstown	R
Clapper, David	Mooreland	H
Dewey, R. J	Knightstown	H
Estabrook, L. W	Springport	R
Ewing, W. M	Knightstown	R
Ferris, Samuel	New Castle	R
Gronendyke, T. W	New Castle	R
Gibbs, C. N.	New Lisbon	R
Gustin, F. M	Middletown	H
Griffis, Robert	Middletown	R
Green, A. W	Knightstown	R
Guyer, O. K	Lewisville	R
Garrett, A. H.	Cadiz	R
Hess, Frank C	Cadiz	R
Hobbs, Wilson	Knightstown	R
Holinger, I. N	Blountsville	R
Holoway, O. E	Knightstown	R
Hardesty, J. C	Millville	R
Hobbs, O. W	Knightstown	R
Homer, R. C. H.	Knightstown	P.-M
Hubbard, E.	New Castle	E
Hastings, S. G	Spiceland	H
James, John H	Middletown	P.-M
Jones, H. W	Spiceland	R
Jackson, F. G	Mt. Summit	R
Kissell, William	New Castle	R
Mendenhall, Isaac	New Castle	R
Mendenhall, E. T	New Castle	R
Moore, John M	Mechanicsburg	P.-M
McGavran, Wm. B	Knightstown	R
McKillep, Jas	Knightstown	R
McCray, R. S	Kennard	R
Needham, John	New Castle	P.-M
Norviel, R. D.	Mt. Summit	E
Newby, Zimri	Greensboro	R
Nellis, S. B.	Knightstown	H
Oalden, W. C	Woodville	R
Pickering, Samuel	New Lisbon	R
Pendleton, C. B	Mechanicsburg	P.-M
Rea, John	New Castle	R
Rea, Geo. N	New Castle	R
Rea, Charles L	Rogersville	R
Rawlins, F. T. C	Maple Valley	R
Reasoner, Wm. M	Sulphur Spring	R
Ross, Jont	Blountsville	R
Rutlege, E. D	Sulphur Spring	E
Rogers, S. G	Lewisville	E
Rodecap, G. W	Middletown	H
Smith, R. A.	Greensboro	P.-M
Smith, Mary J	Greensboro	P.-M
Stafford, J. A	Millville	P.-M
Stafford, Daniel H	New Castle	P.-M
Stanley, Jesse C	Knightstown	R
Smith, N. G	Lewisville	E
Thornburg, Frank	Middletown	R
Thompson, J. F	New Castle	H
VanNuys, W	Lewisville	R
Welch, John H	Middletown	R
Weaver, John	Knightstown	R
Wayman, John	New Castle	P.-M
Whitesell, J. M.	Knightstown	R
Westfield, J. M.	Ogden	E
Weeks, Joseph	Mechanicsburg	P.-M
Waters, Samuel C	Middletown	H
Winston, L. V	Knightstown	R

Regular, 55; Physio-Medical, 11; Homeopathic, 8; Eclectic, 7.

Howard County.

Armstrong, E. A.	Kokomo	R
Bates, Aaron J.	Kokomo	R
Berst, J. H.	Kokomo	R
Byers, J. J.	Hemlock	E
Biesecker, J. W.	West Middleton	E
Baty, Thomas	Oakford	R
Bagwell, L. A.	Jerome	R
Covalt, A. A.	Greentown	R
Cooper, Wm.	Kokomo	E
Conner, Levi	Jerome	R
Dayhuff, A. F.		—
Freeman, A. C.	Kokomo	R
Gifford, T. V.	Kokomo	—
Garr, J. O.	Kokomo	R
Galway, Mary	Jerome	A
Hall, W. H.	Center	R

Howard County—Continued.

Names.	*Post Office.*	*School.*
Hes, S. B.	Russiaville	R
Johnson, I. C.	Kokomo	R
Kern, Lewis	Kokomo	R
Kern, Theo	Kokomo	R
Kirkpatrick, J. B.	Kokomo	R
Kemp, G. W.	Russiaville	R
Lamshe, I. F.	Sycamore	R
Lorett, John A.	Kokomo	R
Moulder, T. M.	Russiaville	R
MOULDER, J. McL.	Kokomo	R
Miller, L. C.	Alto	R
Moore, J. B.	Kokomo	R
Martin, I. W.	Ervin P. O.	R
Murray, S. T.	Greentown	R
Miller, H. C.	Ervin P. O.	R
Miller, A. W.	Plevina	R
Newlin, Sylvester	New London	R
Puckett, J. L.	Kokomo	R
Payton, W. B.	Greentown	R
Payne, A. T.	Russiaville	R
Peters, D. C.	Jerome	R
Purvis, Mary M.	Galveston	A
Rice, E. C.	Oakford	E
Scott, G. B.	Greentown	R
Scott, J. T.	Greentown	R
Smith, R. H.	Kokomo	R
Sawyer, E. W.	Kokomo	H
Shirley, D.J.	New London	R
Scott, Wm.	Kokomo	R
Spray, K.	West Liberty	A
Thomas, R.	Oakford	R
Wilson, R. Q.	Kokomo	R
Ware, C. M.	West Liberty	R
Wooley, C. A.	Kokomo	R

Regular, 38; Eclectic, 4; Homeopathic, 1; Accoucheur, 3; Not reported, 2.

Huntington County.

Bucher, J. C	Andrews	R
Boswell, A. J	Andrews	R
Brandon, W. S	Plum Tree	R
Brelsford, James W	River	R
Crandall, Thomas	Majenica	E
Carson, W. F	Roanoke	R
Chenoweth, G. P	Mt. Etna	R
Chafee, Wm. C	Huntington	R
Chaffee. Alfred B	Roanoke	R
Eversole, Charles.	Pleasant Plain	R
Ferguson, Donald	Huntington	H
France, Mrs. Amanda	Huntington	—
Fry, Charles W	Bracken	R
Fisher, E. S	Brown's Corner's.	R
Grayston, F. S. C	Huntington	R
Grayston, B. H. B	Huntington	R
Good, Jonas	Warren	R
Grayston, Charles E	Huntington	R
Good, Charles A	Warren	R
Hupp, Samuel	Warren	R
James, Martin	Andrews	R
Kaufman, Mrs. F.	Brown's Corner's.	A
Kilander, Wm. J.	Markle	R
Leyman, Emery H	Huntington	R
Leyman, D. S.	Huntington	R
Lyons, Ira E	Huntington	R
Lyons, Wm. B	Huntington	R
Line, B. A	Andrews	P.-M
Mitchell, S. P.	Mt. Etna	R
Mock, J. S	Huntington	R
McLin, J. H	Huntington	H
Palmer, Daniel	Warren	R
Palmer, E. M.	Warren	R
SEVERANCE, LAGR.	Huntington	R
Schoutin, W. D	Monument City	R
Smith, Isaac A	Majenica	R
Searles, Joseph D	Huntington.	E
Scott, Noble W	Mt. Etna	R
Sproul, John S	Warren	R
Scott, Joseph	Markle	R
Trembly, George A.	Bracken	R
Williams, O. B	Andrews	R
Williams, W. H	Harlansburg	R
Wright, Ervin	Roanoke	R
Wallace, L. S.	Hoboken	R
Young, E. T	Warren	—
Yingling, Daniel.	Huntington.	E

Regular, 37; Eclectic, 2; Homeopathic. 2; Physio-Medical, 1; Accoucheur, 11; Unknown, 4.

Jackson County.

Anthony, J. R	Tampico	R
Barnes, George O.	Cortland	R
Bard, Thomas	Uniontown	R
Bain, W. C. A	Brownstown	R
Bergh, Charles	Shields	R
Brimer, Drusilla	Tampico	A
Burdsal, Charles A	Uniontown	R
Cummings, H. A	Spraytown	R
Coryell, Samuel	Crothersville	R
Charlton, S. H	Seymour	R
Cummings, D. J	Houston	P.-M
Casey, W. M	Seymour	R
Chule, G. H.	Freetown	R
Compton, Levina.	Brownstown	A
Carpenter, Pernecia	Crothersville	A
Davis, John W	Mooney.	R
Ewing, F. M	Vallonia	R
Ehrhart, Mary	Ewing	A
Finch, E. T	Freetown	R
Gerrish, M. F	Seymour	R
Galbraith, Thomas S	Seymour	R
Gibson, George W	Houston	R
Green, William Orris	Dudleytown	R
Green, James H	Seymour	—
Gabbart, W. A	Tampico	E
Heilkamp, Elizabeth	Seymour	A
Hodop, Bertha	Seymour	A
Hurekamp, Charlotte.	Cortland	A
Kyte, D. V	Cortland	P.-M
Kyte, H. R	Cortland	P.-M
Manly, Alonzo	Sparksville	—
Mitchell, J. J.	Tampico	R
Moy, Albert R	Crothersville	R
Manuel, Grafton	Freetown	E
Monroe, V. H	Seymour	R
Meahl, Mary	Vallonia	A
McCormack, L. R	Crothersville	E
McMillan, J. P	Medora	R
Newkirk, A. L	Seymour	R
Orvis, G. Q	Seymour	R

Jackson County—Continued.

Names.	*Post Office.*	*School.*
Osterman, A. G.	Dudleytown	R
Patrick, C. E	Seymour	R
Rains, G. W	Cortland	R
Ruddick, Lindl'ey M	Reddington.	R
Robertson, Mary	Brownstown	A
Rodman, W. M	Ewing	R
Reed, E. P	Ewing	R
Richards, Thomas J	Mooney.	R
Shields, John T.	Seymour	R
Shipman, N. N	Seymour	R
Shields, James M.	Seymour	R
Stillwell, Joseph A	Brownstown	R
Stornes, Riley	Maumee	—
Sutton, H. R	Seymour	—
Warner, W. H	Crothersville	E
Wilson, M. V	Medora	R
Wagoner, T. M	Freetown.	—
WOODS, ROBERT A.	Seymour	R
Wells, James C	Mooney	R
Whitehead, W. E	Brownstown	R
Williams, Sarah	Sprayton	A

Regular, 40 ; Eclectic, 4 ; Physio-Medical, 3 ; Accoucheur, 10 ; Not reported, 5.

Jasper County.

Alter, M. B	Rensselaer	R
Antrim, Thomas	Rensselaer	E
Bitters, F. P	Rensselaer	R
Deming, J. C	Rensselaer	R
Gant, Caroline C	Rensselaer	A
Hartsell, W. W	Rensselaer	H
Loughridge, J. H.	Rensselaer	R
Martin, R. Y	Rensselaer	R
Maxwell, S. C.	Remington	R
Patton, D. H	Remington	R
Richey, S. W	Rensselaer	R
Robbins, Ira B	Rose Lawn	H
Reigle, M. W	Remington	R
Stockwell, Williard	Wheatfield	E
WASHBURN, I. B.	Rensselaer	R

Regular, 10: Homeopathic, 2; Eclectic, 2; Accoucheur, 1.

Jay County.

Arthur, C. S.	Portland	R
Anderson, J. M.	Dunkirk	—
Allen, D. M.	Portland	R
Brown, H. V	Portland	R
Bosworth, J. M	Pennville	R
Blackledge, L. N	Pennville	P.-M
Barick, I. N.	Bluff Point	P.-M
Conner, T. C	Red Key	R
Crogan, J. M	Dunkirk	R
Clevinger, B. C	Red Key	R
Chew, C. E	Salamonia	R
Dickes, Phillip	Boundary.	R
Davis. R. P	Portland	R
Fertick, G. W.	Dunkirk	R
Gillum, James	Portland	E
Glentzer, M. A	Bryant	P.-M
Gillum, S. A. D.	Portland	E
Hutchens, J. A	Salamonia	R
Kidder, J. F	New Mt. Pleasant	R
Kinsey, D. S	Portland	R
Lewis, Emma B.	Pennville	R
Mendenhall, Mariah	Pennville	A
Milligan, A. A	Portland	P.-M
Miles, J. T	Bryant	R
Mason, Samuel	Pennville	R
Mackey, C. W.	Portland	R
Munsey, S. E	New Mt. Pleasant	R
Morehouse, J. A	Portland	P.-M
Muicks, F. M	Portland	H
Moon, Ezra W	Portland	E
Poling S. K	Portland	E
Ross, N. E	Greene	R
Ralston, A	New Corydon	R
Ross, J. G.	Westchester.	E
Skinner, B. S	Salamonia	E
Saunders, B. S	Pennville	P.-M
Shepherd, T. S	Portland	R
SIMS, I. G	Portland	R
Sage, I. T.	Red Key	R
Selvey, S. S	Dunkirk	R
Sherwood, R. R.	Pennville	R
Shepherd, G. W	Red Key	R
Stanton, D. S	Portland	R
Vale, I. M	Westchester.	E
Wiest, James	Portland	R
Wicks, James.	Pennville.	—
White, T. C	Powers	R
Woods, Hannah	Portland	A

Regular, 30; Eclectic, 7; Physio-Medical, 6; Not reported, 5 ; Accoucheur, 2.

Jefferson County.

Burdsal, C. A.	Lancaster	R
Brandt, W. E.	Hanover	R
Bruckner, Chas.	Madison	R
Blair, E. B	Bryantsburgh	R
Brengle, J. S	Hanover	R
*Cornett, W. T	Madison	R
Castine, H. W	Madison	R
*Cogley, T. J.	Madison	R
Christie, J. H.	Canaan	R
Davis, Jacob T	Graham	R
Dixon, Z. C	Deputy	R
Eastman, J. S	Hanover	R
Ely, James P	Madison	R
Ford, S. M	Madison	R
Flanders, J. W	Dupont	R
Forshee, T. W	Madison	R

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*Not practicing.

Jefferson County—Continued.

Names.	*Post Office.*	*School.*
Firth, C. C	Wirt	R
Graeber, G. A. C	Madison	R
Hutchings, W	Madison	R
Hutchinson, J. B	Madison	H
Hunter, James	Barbersville	R
Johnson, A. H	Chelsea.	R
Lewis, Samuel B	Canaan.	R
Lewis, James R	Madison	R
Lewis, Geo. C.	Kent	R
Lewis, James F	Dupont	R
Lewis, J. T.	Dupont	R
Lawder, W. G	Brooksburg	R
Mullen, J. W	Madison	R
Matthews, J. H	Madison	R
Murrett, J. A.	North Madison.	R
McCOY, W. A	Madison	R
McCarty, W. W.	Canaan	R
Penn, Benjamin F	Bryantsburg	E
*Philips, A. H	Saluda	—
*Parson, Joseph	Kent	—
Reynolds, John H	Wirt	R
Reynolds, George	Kent	R
Ryker, Chas	Manville	R
Smith, A. D.	Deputy	R
Tevis, E. R	Brooksburgh	R
Tevis, R. M	Brooksburgh	R
Townsend, S. M	Madison	R
*Vail, W. O.	Madison	R
*Wilson, L. J.	Madison	—
Wright, C. H	North Madison	R
Watts, C. N.	Harrell	E

Regular, 41; Homeopathic, 1; Eclectic, 2; not stated, 3.

Jennings County.

Adams, S. D	Brewersville	R
Amick, C. C.	Six Mile	R
Coryea, F. M	Zenas.	R
Cope, J. P	Vernon	R
Firsich, Balthiser	North Vernon	—
Gaddy, N. D	Lovett	R
Gaddy, Orville	Paris Crossing	R
Green, C. H.	North Vernon	R
Green, J. H.	North Vernon	R
Hanna, James	Paris Crossing	R
Hemberger, Elizabeth	North Vernon	A
Hamant, Elizabeth	Six Mile	A
Hodap, Bertha	Six Mile	A
Hicks, B. R.	Nebraska	R
Kendrick, Nathan	Butlerville	R
Kyle, Jas. W	North Vernon	R
Lefeber, J. M	Paris	R
Lyle, John M	Cana	R
Light, A. B.	North Vernon	R
MITCHELL, J. F	Vernon	R
Mitchell, W. J	Vernon	R
McGinty, John	North Vernon	R
Nelson, H. G	Butlerville	R
Pifer, J. D	North Vernon	A
Reynolds, S. H	Scipio.	R
Richardson, N	Vernon	R
Richardson, W. H	Vernon	R
Russell, Benj. F	Paris	R
Remy, W. H	Zenas.	R
Spencer, J. A.	San Jacinto	R
Shephard, J. F	Scipio.	—
Wiles, C. H.	Six Mile	R
Wilson, C. L	Lovett	R
Wildman, Wm. A	San Jacinto	R
Walker, H. D.	San Jacinto	A

Regular, 28; Accoucheur, 5; not reported, 2.

Johnson County.

Adams, J. H	Amity	R
Adams, David	Edinburg	E
Bland, John A.	Edinburg	R
Barrett, O. H.	Edinburg	R
Bebee, James	Whiteland	R
Carnes, Z.	Greenwood	R
Carter, James H.	Needham	R
Covert, G. W.	Whiteland	R
Donnell, John H	Franklin	R
Donnell, T C	Franklin	R
Dobyns, K. P.	Whiteland	R
Dixon, J. W.	Nineveh	R
Davis, A. T.	Nineveh	—
Farris, J. S.	Bargersville	R
Fisher, Ira T	Needham	R
George, J. DeWitt	Franklin	H
Hall, W. C.	Franklin	R
Hall, H. J.	Franklin	R
Hendricks, Wm. C.	Greenwood	R
Hibbs, Irwin	Bluff Creek	R
JONES, J. T.	Franklin	R
Kegley, John S.	Stones Crossing	R
King, John	Bluff Creek	P.-M
Lanam, J. H.	Nineveh	R
Marshall, J. A	Nineveh	—
Miller, A	Whiteland	R
Maze, T. B.	Needham	—
Mercer, J. L.	Rocklane	R
Noble, Thomas B.	Greenwood	R
Ott, Lyman E	Franklin	R
Payne, P. W.	Franklin	R
Province, W. M.	Providence	R
Quick, Samuel B	Edinburg	R
Rush, W. P.	Edinburg	R
Ream, J. B.	Trafalgar	R
Saddler, J. J.	Edinburg	R
Thompson, Howard	Franklin	R
Taggart, Robert	Franklin	R
Tilford, W. E.	Bargersville	R
Tresslar, J. G.	Bluff Creek	P.-M
Webb, Wm. A.	Franklin	R
Wallace, B.	Franklin	R
Wood, J. C.	Franklin	R
Willan, E. B.	Trafalgar	R
Willan, R. Day	Trafalgar	R
Wishard, J. M.	Greenwood	R
Whitesides, C. E	Edinburg	R
Whitesides, L. L	Franklin	R

Regular, 41; Eclectic, 1; P.-M., 1; Unknown, 3.

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* Not practicing.

Knox County.

Names.	*Post Office.*	*School.*
Anderson, W. B	Edwardsport	R
Alsop, George R	Freelandville.	R
Allen, William H	Lovely Dale	R
Berry, John F	Freelandville.	R
Barnett, John H	Vincennes	R
Bugg, Juan F.	Wheatland	R
Black, Elijah C.	Wheatland	R
Boyd, Eli	Vincennes	R
Beard, F. W	Vincennes	R
Beaver, John C.	Vincennes	R
Beaver, Alice W	Vincennes	E
Cross, John E.	Vincennes	R
Davenport, W. H	Vincennes	R
Ducade, James	Wheatland	R
Ducade, John.	Wheatland	R
Davis, Royce	Decker's Station	R
Fairhurst, O	Vincennes	R
Freeland, John T.	Freelandville.	R
Faith, A. H	Edwardsport	R
Grigsby, Wm. B	Oaktown	R
Hensley, John M	Vincennes	R
HARRIS, F. M.	Vincennes	R
Harrison, Samuel	Vincennes	R
Harris, W. B	Vincennes	R
Hunt, P. J	Pond Creek.	R
Hungate, Ed. M	Sandburn.	R
Hawkins, John P.	Decker's Station	R
Jessup, Robert B	Vincennes	R
Jones, J. H	Bicknell	R
Lytton, Jefferson	Wheatland	R
Martin, Wm. H.	Lovely Dale	R
Medcalf, Wm. M	Vincennes	H
Merritt, James N.	Oaktown	R
McDonald, M. M	Freelandville	R
McGower, Wm	Oaktown	R
McDowell, James M	Bruceville	R
Milam, John W.	Bruceville	R
Mayfield, John P	Bruceville	R
Martin, Z. G	Bruceville	R
Owens, T. B.	Oaktown	R
Parker, R. G	Pond Creek.	R
Pugh, John W	Oaktown	R
Reed, Emanuel,	Bicknell	R
Reeves, Joseph L.	Edwardsport	R
Ray, Joel M.	Emison Station	R
Robins, John F.	Freelandville	R
Randolph, John A	Vincennes	R
Swartzell, Joseph A	Vincennes	R
Smith, H. M	Vincennes	R
Sparks, Nathan B	Lovely Dale	R
Sparks, Miller	Lovely Dale	R
Spaulding, Geo. L	Sandburn.	R
Staley, L. B.	Bicknell	R
Trueblood, J. W	Bicknell	R
Van Tress	Lovely Dale	R
Williams, James T	Jourdanville	R
Wise, W. H	Oaktown	R
Warner, M. E.	Oaktown	R
Wheeler, T. M	Sandburn.	R
Young, Newton.	Lovely Dale	R

Regular, 58; Homeopathic, 1; Eclectic, 1.

Kosciusko County.

Becknell, I. J.	Milford	R
Burket, B.	Warsaw	R
Burket, C. W.	Warsaw	R
Bash, J. M	Warsaw	R
Brown, G. W	Claypool	R
Biglow, S	Silver Lake	E
Boydston, B, S	Clunette	E
Black, Catherine	North Webster	A
Bailey, A	Silver Lake	E
Burns, A. M	Silver Lake	R
Byler, J. M	Warsaw	H
Burwell, A. M.	Atwood	A
Campbell, H. A.	Warsaw	H
Collar, A. R.	Syracuse	R
Cable, Mrs. Chas	Milford	A
Chandler, J. A	Mentone	E
Cammack, Thos	Milford	R
Clayton, C. M.	Warsaw	E
Coons, M. J	Etna Green	E
Cowgill, H. M.	Warsaw	P.-M
DAVISSON, J. H.	Warsaw	R
Dick, Milford L.	Pierceton	E
Dick, D. J.	Pierceton	E
Furlong, Mrs. M. J.	Warsaw.	—
Funk, Polly	Silver Lake	A
Goble, Mrs. Joseph	Atwood.	A
Gilpin, E. P	Milford	R
Goodall, Mary J	Warsaw	R
Gustin, F. M	Warsaw	H
Hayes, William	Pierceton	R
Heffley, John W.	Burket	H
Hazel, J. B	Claypool	R
Hatfield, T. J	Pierceton	—
Hoopingarner, J. J	Milford	R
Junkins, Samuel B	North Webster	R
Johnson, Mrs.	Orion	A
King, Hiram O	Pierceton	R
Kline, Mrs	Orion	A
Kelley, D. C	Syracuse	E
Knorr, C	Syracuse	E
Ketchum, Geo	Claypool	R
Leedy, Mrs	Pierceton	A
Love, John W	Milwood	E
Lindsey, Mrs.	Milford	A
Lancaster, T. A.	Sidney	R
Moro, Francis	Warsaw	R
Marine, J. F	Hepton	R
Matchett, Wm. C	Pierceton	E
Moody, Theo. F	Pierceton	R
Michael, E	Leesburg	—
Outkelt, Harriet	Pierceton	A
Ogle, F. E.	Warsaw	—
Pearman, F. M	Palestine	R
Parks, John P.	Atwood	R
Parker, J. W	Oswego	—
Ritter, Mrs	North Webster	A
Robinson, A. B.	Etna Green	E
Ritter, Harman	North Webster	—
Robinson, R.	Monoquet	E
Smith, J. S	Warsaw	P.-M
Stenter, Elizabeth	North Webster	A
Swyhart. C. M	Warsaw	E
Seeley, Mrs.	Pierceton	A
Schoonover, W. B	Leesburg	R
Swigart, H. M	Atwood	R
Strain, T. W	Silver Lake	E
Sherbondy, G. W.	Silver Lake	—
Smith, Scott W.	Pierceton	—
Scott, Wm	Pierceton	—
Stockbarger, E	Mentone	R
Shackelford, T. J.	Warsaw	R
Terry, D. E	Silver Lake	R
Tenant, L. H	Pierceton	—
Thomas, Samuel	Leesburg	—
Vaughn, Martin	Packerton	R
Woolley, A	Warsaw	E
Wall, J. J	Beaver Dam	E
Wryland, Margaret	Syracuse	A

Regular, 29; Eclectic, 18; Homeopathic, 4; Physio-Medical, 2; Accoucheur, 14: not reported, 11.

Lagrange County.

Names.	*Post Office.*	*School.*
Ballah, W. J	Mongo	R
Balyeat, E. A	Mongo	H
Broughton, F. H	Wolcottville	R
Burden, Levi.	Hawpatch	E
CASEBEER, H. M.	Lagrange	R
Crane, E. L.	Lagrange	H
Dancer, John.	South Milford	R
Dayton. G. H.	Lima	R
Engle, J. B	Lagrange	R
Furguson, W. A	Lexington	R
Goodrich. C. D	Lima	R
Hughes, Wm	Lima	R
McCoy, Walter	Lagrange	R
Niman, J. P	Lagrange	R
Niman, C. H	Lagrange	R
Price, H B	Woodruff	E
Raby, Wm	Wolcottville	R
Short, J. L	Lagrange	R
Short, Wm	Lagrange	R
Spaulding, A. M	Brushy Prairie	R
Shrock, H. W.	Shore	R
Toms, W. B.	Scott	R
Vaughn, Iris	Hawpatch.	R
Waddell, C	Lagrange	E
White, E G	Lagrange	R
Work, S. A	Wolcottville	R
Younkins, J. W	Wolcottville	R

Regular, 22; Homeopathic, 2; Eclectic, 3.

Lake County.

Bassett, G. R	Hobart	E
Bassett, Susan	Hobart	E
Bacon, E. R	Lowell	R
BLISS, MALCOLM G	Crown Point	R
Davis, John	Lowell	R
Groman, Charles	Brunswick	H
Gerrish, A. A.	Lowell	R
Gordon, P. P	Hobart	R
Higgins, John	Crown Point	R
Hill, Jessie	Creston	R
John, John W	Dyer	R
King, Charles W	Crown Point	—
Merrill, Warren W.	Hammond	E
Miller, H. F. C	Hammond	R
Miller, J. L.	Hammond	R
Pratt, A. J	Crown Point	R
Pettibone, Harvey	Crown Point	R
Pettibone, Henry.	Crown Point	R
Phillips, Norton J	Lowell	—
Paul, Ph. D.		—
Seidler, Anthony.	Dyer	R
Schreiber, W. H	Hanover Centre	E
Vincent, Alonzo W.	Hobart	—
VanDewalker, Jas. J.	Hammond	E
Wood, Jas. A.	Lowell	R

Regular, 14; Eclectic, 5; Homeopathic, 1; not stated, 4.

Laporte County.

Andrews, G. L	Laporte.	R
ANNIS, E. L	Laporte.	R
Birchim, J. B.	Hatch's Mills.	R
Bowell, B. C	Rolling Prairie.	R
Brown, D. T	Michigan City	H
Brust, E. D	Laporte.	A
Cole, E. C.	Michigan City	H
Crandall, R. O	Laporte.	R
Crumpacker, D. S	Union Mills	R
Dakin, George S	Laporte.	E
Darling, N. S	Laporte.	R
Ellsworth, H. N	Kingsbury	R
Fahnestock, A. A	Laporte.	H
Fahnestock, C. S	Laporte.	H
Fisher, W. H	Wanatah	R
Fravel, T	Westville	R
Freeman, B. B	Westville	H
Fuenfstueck, Mrs. M	Laporte.	A
Godfrey, Walter M	Michigan City	R
Hamarick, C. C	Michigan City	R
Hollenbeck, B. W	Westville	E
Hoppe, Caroline	Michigan City	A
Jones, R. W	Union Mills	R
Keen, L. S	Laporte.	R
Landon, C. P	Michigan City	A
Ludwig, C. H	Laporte.	H
Martin, J. S	Rolling Prairie	R
Meyer, J. H. W	Laporte.	R
Mullen, A. J	Michigan City	R
Palmer, R. A	Hannah Station	R
Richards, Phœbe	New Carlisle	R
Rosengen, J. R	Michigan City	R
Rogers, E. A	Laporte.	R
Rose, Landon C	Laporte.	R
Schultz, H	Michigan City	R
Sharpless, P. D	Rolling Prairie.	R
Sherman, M. G	Michigan City	R
Smith, A. M	Hannah Station	R
Sovereign, L. H	Michigan City	R
Sparr, — —	Hannah Station	R
Stevens, M. A	Laporte.	R
Tilden, J. E.	Wanatah	R
Tillottson, A. G	Michigan City	R
Tellefron, Mrs. A.	Michigan City	A
Wilson, W. B	Rolling Prairie.	R

Regular, 32; Homeopathic, 6; Eclectic, 2; Accoucheur, 5.

Lawrence County.

Names.	*Post Office.*	*School.*
Allen, E	Fayetteville	R
Bare, A. W	Bryantsville	R
Berry, A. F	Springville	R
Biggs, J. T	Mitchell	R
Blackburn, J. S	Silverville	R
Burton, John	Georgia	R
Burton, W. A.	Mitchell	R
Burton, G. W.	Mitchell	R
Butler, S. W	Huron	R
Dixon, H. C	Tunnelton	R
Donica, T. N	Ft. Ritner	R
Ellison, W. T.	Heltonville	R
Fanlin, J	Heltonville	R
Faucette, J. H	Williams	R
Gunn, J. H.	Springville	R
Goodwin, A. L	Mitchell	R
Gibson, J. B	Huron	R
Hornocker, S. D	Silverville	E
Howard, S. B	Tunnelton	R
Hunter, W. L	Ft. Ritner	R
Kimberlin, H. L	Mitchell	R
Jones, Rebecca	Huron	A
Judah, W.	Guthrie	R
Kinser, Mahala	Guthrie	A
Lowder, G	Springville	R
Larkin, J. B	Mitchell	R
Martin, S. F	Mitchell	R
Malott, S	Bono	E
McDonald, A. J	Mitchell	R
McIntire, E. S	Mitchell	R
McLaughlin, O.	Bartlettsville	R
Newland, Ben	Bedford	R
Newland, J. W	Bedford	R
Pearson, J. C	Mitchell	R
Phipps, J. M	Heltonville	R
Rariden, C. E.	Bedford	R
Rariden, S. A.	Bedford	R
Ramsey, N. A	Huron	A
Short, M	Fayetteville	R
Smith, W. H	Leesville	R
Smith, S. W	Leesville	R
Stillson, Jos	Bedford	R
Stillson, H	Bedford	R
Voyles, Harvey	Fayetteville	R
Woodward, W. B	Springville	R
Yandell, Wm	Huron	R
YOST, J. L. W	Mitchell	R

Regular, 41; Eclectic, 2; Accoucheur, 3.

Madison County.

Names.	*Post Office.*	*School.*
Aldred, John A.	Fishersburg	R
Alexander, L. E	Pendleson	R
Armfield, J. L	Elwood	R
Armington, C. L	Chesterfield	R
Atherton, R. M.	Anderson	H
Beck, James	Elwood	R
Beck, Thomas S.	Elwood	R
Bell, J. L	Anderson	N. S
Branch, C. N	Anderson	R
Brandon J. F	Anderson	R
Brickley, W. P	Anderson	P.-M
Broadbent, O.	Anderson	R
Brownback, O. W.	Pendleton	R
Brown, Martin	Funks	R
Carter, D. M	Anderson	R
Chiles, B. F.	Frankton	P.-M
Chittenden, G. F	Anderson	R
Cook, John W.	Pendleton	R
Cook, Joel	Orestes	E
Cook, Daniel	Fishersburg	R
Cook, Ward.	Pendleton	R
Clark, T. J	Summitville	N. S
Covertson, J. W.	Frankton	R
Cranfield, M. L.	Summitville	N. S
Davidson, G. N.	Pendleton	P.-M
Dehority, J. M	Elwood	R
Dehority, F. S	Frankton	R
DIVEN, CHAS. E	Anderson	R
Edwins, S. W.	Frankton	R
Fernandez, D. H	Anderson	R
Fussell, Lundy	Markleville	R
Garretson, J. M.	Perkinsville	R
Garretson, W. M	Perkinsville	R
Goodwin, S. A	Rigdon	N. S
Guisinger, J. S	Florida	R
Harter, J. H	Anderson	R
Harter, W. P	Anderson	R
Hilligass, G. N	Lapelle	R
Hockett, Z	Anderson	H
Hougham, J. S	Perkinsville	E
Hunt, J. W	Alexandria	R
Hunt, W. A.	Anderson	R
Hunt, T. M	Summitville	N. S
Huston, A. S	Pendleton	P.-M
Inlow, J. E.	Alexandria	R
Jones, H. E.	Anderson	R
Lewis, W. H	Pendleton	R
Manring, N. H	Rigdon	R
Marlow, A. F	Summitville	E
McTurnan, M. J	Rigdon	R
Morgan, W. J.	Gilman	R
Mulliken, J. H	Elwood	R
Munsey, J. S	Summitville	N. S
Nuzum, D. P	Rigdon	E
Perry, John W	Alexandria	R
Perry, A. J	Alexandria	R
Pugh, J. W	Alexandria	R
Pugh, Joseph	Alexandria	R
Purdy, G. W	Fishersburg	E
Saunders, J.	Anderson	R
Spann, B. F.	Anderson	R
Spitzmesser, J. L	Elwood	R
Sharp, W. M	Aloxandria	R
Sigler, D	Elwood	R
Stewart, J.	Anderson	R
Stephenson, J.	Pendleton	R
Suman, Wm.	Anderson	R
Swallow, G. E	Summitville	R
Richwine, L	Perkinsville	P.-M
Robertson, W. S	Anderson	N. S
Rogers, E. P	Pendleton	H
Runyan, J. F	Alexandria	R
Wickersham, N. L	Anderson	R
Van Metre, I. N	Florida	R

Regular, 54; Homeopathic, 3; Eclectic, 5; P.-M., 5; Not reported, 7.

Marion County.

Names.	*Post Office.*	*School.*
Abbett, Charles H	Indianapolis	E
Abbett, F. M	Indianapolis	—
Abbett, Lawson	Indianapolis	E
Allen, J. Q	West Newton.	R
Allen, Wesley	West Newton.	R
Allman, W. B		R
Anderson, J. E	Indianapolis	—
Anthony, E.	Indianapolis	P.-M
Bailey, W. P	Southport.	R
Barnes, C. A	Brightwood.	R
Barnes, H. F	Indianapolis	R
Bates, J. W	Broad Ripple	R
Bedford, C. P.	Indianapolis	P.-M
Bell, Guido	Indianapolis	R
Bennerscheidt, L.	Indianapolis	A
Bennett, P. S	Southport	—
Beyer, Frederica	Indianapolis	A
Bigelow, J. K.	Indianapolis	R
Bigger, R. H	Indianapolis	R
Bisbinger, John	Cumberland	—
Blane, H. G.	Indianapolis	—
Blattner, F. R	Indianapolis	—
Bleck, L	Indianapolis	—
Blu, U. L	Indianapolis	—
Boonligan, Emma	Indianapolis	A
Bower, J. V.	Millersville.	R
Brayton, Alámbert W	Indianapolis	R
Brennan, E. J	Indianapolis	R
Bristol, A. S	Indianapolis	—
Brooks, C. A		—
Brown, J. R	Insane Asylum	R
Brown, C. S		R
Brown, S. M		R
Brown, S. M	Gallaudet.	R
Brown, H. J.	Indianapolis	—
Browning, W. J.	Insane Hospital	R
BRYAN, THOS. N.	Indianapolis	R
Bryan, D. C.	Indianapolis	R
Buell, Susan S	Indianapolis	A
Bula, R. W	Indianapolis	—
Butterfield, S. A	Indianapolis	R
Campbell, Anna B	Indianapolis	—
Campbell, L. S	Indianapolis	R
Canfield, Mrs. O	Indianapolis	—
Carvin, J. M	Indianapolis	—
Carson, L. O	Traders' Point	R
Case, L. B.	Indianapolis	R
Chambers, John	Indianapolis	R
Chandler, G. E	Indianapolis	—
Christ, D. Overly	Indianapolis	R
Clarke, Americhie	Indianapolis	A
Clarke, A	Indianapolis	—
Clarke, W. B	Indianapolis	H
Clemmer, F. O	Indianapolis	H
Coble, G. W.	New Augusta	R
Collins, E. H	Wellington	—
Collins, W. F	Indianapolis	—
Combs, George	Indianapolis	R
Comingore, John A	Indianapolis	R
Compton, J. A	Indianapolis	H
Cook, George J	Indianapolis	R
Cory, A. F	Oaklandon	R
Corliss, C. T.	Indianapolis	H
Cress, J. B	Indianapolis	R
Culbertson, J. W	Indianapolis	—
Culbertson, W. D.	Indianapolis	R
Cummings, T. J	Indianapolis	—
Collingham, J. J	Indianapolis	—
Curtis, G. L.	Indianapolis	R
Cunningham, H. S	Indianapolis	—
Darrach, G. M	Cumberland	—
Daniels, Mrs. E. A	Indianapolis	R
Daugherty, J. H	Irvington	R
Davis, Samuel	Indianapolis	R
Davis, T. T	Indianapolis	—
Davis, W. H	Indianapolis	R
Denke, Walter W	Indianapolis	—
Dickerson, J. L.	Indianapolis	—
Duffield, J. T	Indianapolis	—
Duncan, Hiram	Indianapolis	—
Dunlap, J. M	Indianapolis	R
Dunn, W. Max	Indianapolis	—
Earp, Samuel E	Indianapolis	R
Eastman, Joseph	Indianapolis	R
Elbert, Samuel A	Indianapolis	R
Elder, E. S	Indianapolis	R
Elmore, C. G	Indianapolis	—
Elstun, W. J	Indianapolis	R
Farmers, S. W	Indianapolis	—
Farnsworth, T. W	Indianapolis	—
Featherston, J. R	Indianapolis	R
Fehr, Louisa	Indianapolis	A
Felder, Charles A	Indianapolis	—
Felderman, Mrs. B	Indianapolis	A
Ferree, F. M	Indianapolis	R
Ferree, S. L.	Indianapolis	R
Ferguson, Frank C	Indianapolis	R
Field, M. H	Indianapolis	R
Fisher, A. W	Indianapolis	P.-M
Fletcher, Calvin I	Indianapolis	R
Fletcher, William B	Insane Asylum	R
French, Mattie J	Indianapolis	—
Freidrich, C	Indianapolis	A
Frœtgseh, J. N	Indianapolis	—
Funkhouser, D	Indianapolis	R
Garver, J. J.	Indianapolis	R
Gaston, John M	Indianapolis	R
Gill, John	Indianapolis	—
Gill, Josephine	Indianapolis	—
Godfrey, John H	Cumberland	R
Graves, C. M	Glenn's Valley	R
Graydon, R. G	Southport.	R
Griggs, O. B	Bridgeport	R
Grimes, Martha O	Indianapolis	A
Hadley, E	Indianapolis	R
Haggart, David	Indianapolis	H
Haynes, J. R	Indianapolis	H
Hastey, George.	Indianapolis	P.-M
Harvey, T. B	Indianapolis	R
Haugh, J. A	Indianapolis	R
Haughton, R. E	Indianapolis	R
Haymond, W. S	Indianapolis	R
Hays, W. F	Indianapolis	R
Heil, Charles P	Indianapolis	—
Heltman, J. K	Oaklandon	R
Henning, John A	Clermont	—
Herr, J. S	Indianapolis	R
Hervey, J. W	Indianapolis	R
Hinshaw, T. M	Nora	R
Hodges, E. F	Indianapolis	R
Hoover, M. A.	Indianapolis	R
Hoss, J. V	Indianapolis	R
Howard, Edward.	Indianapolis	—
Howard, Mrs. A. J	Indianapolis	—
Jackman, Augusta	Indianapolis	—
Jameson, Henry	Indianapolis	R
Jameson, P. H	Indianapolis	R
Jeffries, W. E.	Indianapolis	R
Johnson, W. P	Indianapolis	R
Jonas, Minnie	Indianapolis	—
Jones, S. D	Indianapolis	H
Kendrick, W. H	Indianapolis	E
Kennedy, J. Y	Acton.	—
Kellogg, Mrs. M. A	Indianapolis	A
Keon, Mrs. R	Indianapolis	A
Kinchen, Amanda	Indianapolis	A
Kindleberger. W. H	Indianapolis	H
Kitchen, John M	Indianapolis	R
Krumrine, J. A.	Irvington.	R
Lampton, G. W.	Brightwood.	R
Lesh, D	Indianapolis	P.-M
Levitt, P. C	Acton.	R
Light, R. C	Broad Ripple	R
Lockridge, John E	Indianapolis	R
Long, John B.	Indianapolis	R
Long, Robert W	Irvington	R

Marion County—Continued.

Names.	*Post Office.*	*School.*
Lutz, George W	Indianapolis	R
Lyle, Arthur W	Castleton	R
Manker	Indianapolis	R
Manker, L	Bridgeport	R
Mapes, S. H.	Lawrence	R
Marsee, J. W	Indianapolis	R
Martin, F.	Indianapolis	R
Martin, W. F	Indianapolis	R
Maxwell, Allison	Indianapolis	R
McClure, C. B	Insane Hospital	R
McDonald, W. B	New Augusta	R
McNutt, W. Y	Southport	R
McPheeters, A. C.	Indianapolis	R
McShane, J. T	Carmel	R
Meacham, C. A	Acton	R
Mendenhall, A. B	Indianapolis	R
Mendenhall, E	Indianapolis	R
Mendenhall, E. J.	Indianapolis	—
Metcalf, C. N	Indianapolis	R
Miller, E. P.	Indianapolis	—
Mills, Seth	Valley Mills	R
Murich, James A.	Indianapolis	—
Monroe, V. H.	Indianapolis	—
Monroe, J. R	Indianapolis	—
Moore, S. H.	Indianapolis	R
Moore, Thomas	Indianapolis	—
Moore, W. G	Indianapolis	R
Morgan, W. V	Julietta	R
Morrison, F. A	Indianapolis	R
Morrow, Joseph E	Indianapolis	R
Neff, David	Indianapolis	—
New, George W.	Indianapolis	R
Newcomer, F. S.	Indianapolis	R
Nesbit, J. A.	Castleton	R
O'Diele, F	Cumberland	—
Oliver, D. H	Indianapolis	R
Oliver, J. H.	Indianapolis	R
Pantzer, H. O.	Indianapolis	R
Parker, F. H	Indianapolis	—
Parson, John S.	Indianapolis	R
Partlow, J. W	Indianapolis	R
Patterson, A. W	Indianapolis	R
Paxon, J. C.	Indianapolis	—
Peachee, H	Maywood	R
Pearson, Chas. D	Indianapolis	R
Perry, C. P	Indianapolis	—
Perry, Ralph S	Indianapolis	R
Pettijohn, O. B	Indianapolis	R
Pfaff, O. G	Indianapolis	R
Pfitzen, E.	Ben Davis	—
Pfitzer, Caroline	Indianapolis	—
Pickerill, G. W	Indianapolis	P.-M
Pierce, A. S.	Indianapolis	—
Pink, Herman	Indianapolis	R
Pledger, C	Indianapolis	—
Plowman, H	Indianapolis	—
Porter, C. N	Indianapolis	R
Porter, E. D.	Indianapolis	R
Powell, B. B	Indianapolis	—
Preston, ——	Indianapolis	—
Prunk, D. H	Indianapolis	—
Purdy, E	Augusta	R
Purdum, F. M	Indianapolis	—
Purman, D. M	Indianapolis	R
Ratliff, Barclay	West Newton	R
Reade, J	Traders Point	R
Records, Samuel	Lawrence	R
Redding, G. P	Indianapolis	—
Redding, Jacob	Indianapolis	E
Rehe, Bertha	Indianapolis	A
Reyer, E, C.	Indianapolis	R
Reynolds	Indianapolis	—
Ridpath, H. W.	City Hospital	R
Riddell, G. W	Indianapolis	—
Robbins, Wesley	Indianapolis	E
Rohner, Margaret	Indianapolis	A
Rooker, James I	Castleton	R
Rooker, C. N.	Indianapolis	R
Rose, F. W.	Indianapolis	—
Rowe, L. M.	Indianapolis	R
Runnels, O. S.	Indianapolis	H
Rusher, Sophia	Indianapolis	A
Sanders, J. W.	Acton	R
Semple, W. F.	Indianapolis	R
Scarber, W. H,	Indianapolis	—
Schell, Emily	Indianapolis	A
Schmidt, Elizabeth	Indianapolis	A
Schneider, Eliza	Indianapolis	A
Selman, A. G.	Indianapolis	R
Serrin, J. S.	Indianapolis	—
Shutt, Susan	Indianapolis	A
Siddall, J. P	Indianapolis	—
Sigler, George A.	Indianapolis	—
Silvey, H	Castleton	—
Smith, A. J.	Castleton	—
Smith, J. N.		R
Spees, George	Glenn's Valley	R
Spicer, J. W.	Acton	R
Stein, F.	Indianapolis	—
Stevens, T. M.	Indianapolis	R
Stewart, T. H.	Indianapolis	—
Stocker, W. H.	Indianapolis	R
Stillson, J. O.	Indianapolis	R
Stockton, Sarah	Insane Asylum	R
Stone, R. French	Indianapolis	R
Stratford, A.	Indianapolis	R
Stratford, I. W.	Indianapolis	R
Sutcliffe, J. N.	Indianapolis	R
Swain, Fremont	Indianapolis	R
Swain, Rachel	Indianapolis	—
Taylor, Hervey	Indianapolis	R
Taylor, J. H.	Indianapolis	R
Thomas, A. J.	Insane Hospital	R
Thomas, E. C.	Haughsville	R
Thomas, W. H.	Indianapolis	R
Thompson, D. A.	Indianapolis	R
Thompson, J. L.	Indianapolis	R
Thompson, W. C.	Indianapolis	R
Todd, Luther L.	Indianapolis	R
Tolley, W. V.	Indianapolis	R
Uphaus, Anna M.	Indianapolis	—
Wagner, T. A.	Indianapolis	R
Walker, Jno. C.	Indianapolis	R
Walker, Isaac C.	Indianapolis	R
Walker, J. B.	Indianapolis	R
Wall, David	Clermont	R
Walters, T. J	Indianapolis	—
Wands, Wm.	Indianapolis	R
Ward, A. O.	Southport	R
Waterman, L. D.	Indianapolis	R
Waters, P. J.	Indianapolis	R
Watson, Thos. N.	Indianapolis	—
Webb, J. C.	Indianapolis	—
Wehrman, E. N.	Indianapolis	H
Westholter, C.	Indianapolis	—
White, C. H.	Indianapolis	—
White, H. M.	Indianapolis	—
White, S. M.	Indianapolis	—
White, W. G.	Indianapolis	—
Whitenack, J. H	Glenn's Valley	R
Wiley, Delaney	Indianapolis	R
Williams, Ransom	Indianapolis	—
Williamson, J. W.	Indianapolis	—
Wishard, George W.	Indianapolis	R
Wishard, J. M.	Greenwood	R
Wishard, Wm. H.	Indianapolis	R
Wishard, Wm. N.	City Hospital	R
Wood, Levi	Indianapolis	—
Wood, Wm. F.	Haughsville	—
Woodard, N. D.	Indianapolis	P.-M
Woodburn, J. H.	Indianapolis	R
Woodward, S. G.	Indianapolis	R
Woolen, G. V	Indianapolis	R
Wright, C. E	Indianapolis	R
Yoke, Charles	Bridgeport	R
Young, James	Indianapolis	—
Zaring, C. F.	Indianapolis	R

Regular, 191; Eclectic, 4; Homeopathic, 8; P.-M., 6; Accoucheur, 19; Not reported, 92.

Marshall County.

Names.	*Post Office.*	*School.*
Bower, Isaiah	Plymouth	R
Bell, Jno. F	Inwood	R
Barton, T. A	Plymouth	R
Baker, Daniel	Plymouth	—
Brooke, J. E	Plymouth	R
Baure, Mrs. Lisette	Bremen	A
Caillat, V.	Argos	R
Chapman, C	Argos	R
Church, J. W	Bremen	R
Confor, James M	Plymouth	R
Cormican, Mrs. S. I	Bourbon	A
Dicks, James	Plymouth	H
Deniston, J. M	La Paz	R
Doke, John T.	Walnut	R
Dietrich, W. A	Bremen	R
Eidson, J. W	Bourbon	R
Eaton, R. B.	Argos	R
France, Samuel	Bourbon	R
Gould, Samuel W	Argos	R
Holtzendorf, A. C	Plymouth	R
Hamilton, John J	Linkville	R
Herring, N. A	Bremen	E
Johnson, Luther	Bourbon	R
Johnson, I. H	Plymouth	E
Knott, D. C.	Burr Oak	E
Kiser, J. H	Walnut	E
Linn, T T	Bourbon	R
Modriker, Morris	Bremen	R
Moore, Allen	La Paz	R
McElrath, Marion	Sligo	R
Matchette, A. C	Bourbon	R
McCormick, Jno. P.	Tyner City	R
Mallett, I. T	Tippecanoe	E
Moore, C. W	Teegarden	R
May, A. S.	Donaldson	E
Neville, R	Teegarden	R
Olds, W. M	Bremen	E
Oyler, W. A.	Argos	R
Peck, C. T	Bourbon	R
Peck, Mary E	Bourbon	R
Pocock, E. H	Walnut	R
Parks, B. W	Bourbon	R
Rea, O. A.	Marmont	R
Richardson, D. R.	Tyner City	H
REYNOLDS, G. R.	Plymouth	R
Richey, S. R	Donaldson	R
Short, Robert B	Bourbon	R
Smith, C	Bremen	E
Sutton, J. A	Argos	R
Stange, W. M.	Bremen	R
Simpson, S	Teegarden	R
Tripp, Franklin	Bremen	R
Viets, E. W.	Plymouth	H
Wilson, J. H	Plymouth	R
Wiseman, B. W	Marmont	R
Wahl, G. F	Bremen	R
Younkman, A. B	Bremen	R

Regular, 43; Homeopathic, 3; Eclectic, 8; Accoucheur, 2; not reported, 1.

Martin County.

Armstrong, Mary	Loogootee	A
Brittain, Stephen H	Loogootee	R
Batchelor, America	Shoals	A
Campbell, John L.	Loogootee	R
Doss, John A.	Shoals	P.-M
Dollins, T. C.	Trinity Springs	R
Gray, William	South Martin	R
Gibson, Elizabeth	Alfordsville	A
Hackler, P. M.	Shoals	A
Hughes, Nancy	Shoals	A
Malott, Geo. F	Trinity Springs	R
McCullough, Lettuce	Trinity Springs	A
McPherson, S. L	Trinity Springs	R
McNabb, O. H.	Keck's Church	R
Plummer, I. Nutt	Shoals	R
Plummer, R. S.	Shoals	R
Porter, A. W.	Loogootee	E
Shirley, H. W.	Shoals	R
Smith, Nancy	Shoals	A
Sims, J. N.	Dover Hill	E
Solamon, John J.	Shoals	R
Thomas, W. J.	Keck's Church	R
Wilson, Isom R	Loogootee	R
Walter, James R.	Loogootee	R
Walls, G. W.	Shoals	R
Westhafer, Rebecca	Dover Hill	A
Wainger, Elizabeth	Hillham	A
YENNE, C. H.	Shoals	R

Regular, 16; Eclectic, 2; P.-M., 1; Accoucheur, 9.

Miami County.

Ager, A. U	Perrysburg	R
Armstrong, W. K.	Mexico	R
Armstrong, A.	Miami	R
Brenton, W. H	Peru	R
BLOOMFIELD, E. M	Peru	R
Black, Francis	Reserve	E
Boggs, M. M.	Macy	R
Bellew, John C	Chili	E
Barnes, John	Macy	—
Brady, C. C	Gilead	R
Baldwin, J. A.	Amboy	E
Coe, A. D	Mexico	R
Caple, A. Z	Gilead	R
Campbell, E. L	Miami	R
Cain, John C	Bunker Hill	R
Case, Augustus	Gilead	R
Drinkwater, E. H	McGrawsville	R
Davis, S. H	Bunker Hill	E
Davis, G. W.	Miami	E
Dennis, F. W	Gilead	R
Day, Thomas J	Miami	—
Ellis, J. W	Peru	E
Endesley, James F	Denver	—
Friermood, E. K	Amboy	R
Friermood, S. M	Santa Fe	R
Frets, J. C.	Deedsville	R
Graham, B. R.	Peru	R
Gray, A. J.	North Grove	R
Higgins, C. B	Peru	R
Helm, J. H	Peru	R
Ijams, Thomas F	North Grove	R
Kimball, A. D	Xenia	R
Kimball, T. C.	Xenia	R
Kalbflish, A. H	Peru	H
LaDue, John C	Denver	R
Litzenberger, O. P	Xenia	R
Marsh, Simeon S	Peru	R
Meek, James A.	Bunker Hill	R
Mendenhall, O. A	Xenia	R
Maughmer, G. C	Waupecong	R

Miami County—Continued.

Names.	*Post Office.*	*School.*
McDowel, H. P.	Bunker Hill	R
Pence, Rollin.	Peru.	R
Peters, R. J. D	Macy	—
Passage, H. V.	Peru.	R
Proctor, R. G	Miami.	P.-M
Rutherford, C. E	Peru	H
Ramsey, S. G	Reserve	R
Ross, Robert	Bennetts	R
Robbins, J. Q. A	Denver	R
Ridenour, David	Chili.	R
Records, Isaac	Miama	R
Rains, Anna	Macy	A
Smith, R. W	Xenia	R
Smith, A. F	Waupecong	R
Stafford, M. A	Peru.	H
Sutton, E. H	Macy	R
Spooner, Jared	Peru.	R
Smith, Alex C.	Bennetts	E
Stafford, Isabel	Peru	H
Snook, O. F.	Macy	—
Watkins, F. H	Peru.	E
Wilson, W. T	Bunker Hill.	R
Ward, J. O	Peru.	R
Wareham, J. W.	Gilead.	R
Wagner, Elizabeth	North Grove	A
Waite, J. C	Chili.	R
Wilson, J. S.	Macy	E

Regular, 46; Homeopathic, 4; Eclectic, 10; P.-M., 1; Not reported, 18.

Monroe County.

Axtell, A. J.	Bloomington	R
Barrow, Daniel.	Unionville	R
Branan, Jonathan	Bryant's Creek.	E
Brown, Sarah.	Bloomington	A
Bryan, Geo. W	Bloomington	R
Campbell, C. S	Unionville	R
Campbell, J. B	Unionville	R
Cox, Charon	Unionville	A
Deckard, Catherine	Guthrie	A
Dodd, James	Clear Creek.	R
Dodds, James F	Bloomington	R
Davis, Oscar	Stinesville	R
Farr, A. C	Bryant's Creek.	R
Gaston, James H.	Stanford	R
Goss, Malinda	Dudley	A
Griffith, Ester	Bloomington	A
Harris, James M	Ellettsville.	R
Harris, Jno. E	Bloomington	R
Harris, R. C	Ellettsville.	R
Harris, Jno. J	Stinesville	R
Humston, S. R	Smithville	R
Lampkins, S	Bloomington	A
Lowder, L. T	Harrodsburg	R
Maxwell, Jas. D., Sr	Bloomington	R
Maxwell, Jas. D., Jr	Bloomington	R
McGee, Ben A	Bloomington	H
McLahlan, C. D	Harrodsburg	R
McPheeters, Jas. D	Bloomington	R
Oliphant, P. T	Buena Vista	E
Payne, Lucinda	Bryant's Creek.	A
Rice, N. L	Dudley	—
Simpson, Jno. P	Harrodsburg	R
Tourner, Jno. P	Bloomington	E
WEIR, ROBERT M	Bloomington	E
Whitted, Wm. L	Bloomington	E
Warring, Jno. W.	Smithville	R

Regular, 22; Eclectic, 5; Homeopathic, 1; Accoucheur, 7; not reported, 1.

Montgomery County.

Adkins, Benj. F	New Ross.	R
Barnes, D. E	Crawfordsville	R
Bailey, R. H	Crawfordsville	—
Ball, Zopherd	Waveland	R
Beatty, Jas. F	New Market	R
Berryman, Jas. A	Potato Creek	R
Black, Dayton R	New Richmond.	R
Brown, Alonzo	Alamo	R
Brown, Israel	Alamo	R
Brown, L. L	Kirkpatrick	R
Bowers, Homer.	New Ross.	R
Burroughs, W. M. H	Shannondale	R
Claypool, Jas. S	Waynetown.	R
Cowan, E. H	Crawfordsville	R
Culver, Dudley M	Whitesville.	R
Currie, John H	Darlington	R
Dervey, G. W.	Prairie Edge	R
Detchon, E	Crawfordsville	R
Detchon, Irwin A	Crawfordsville	R
Donaldson, J. W	Ladoga	R
Drake, Moses O.	Ladoga	R
Duncan, James R	Crawfordsville	E
Ellis, E. R	Whitesville.	R
Eddingfield, G. W	Mace	R
Ensminger, J. H	Crawfordsville	R
Ensminger, S. L	Crawfordsville	R
Etter, James R.	Crawfordsville	R
Fitch, A. P.	Waynetown.	R
Fall, Chas. W.	Bowers	R
Freeman, W. C	Pleasant Hill.	R
Griffith, Martha E	Darlington	R
Griffith, Thos. J	Darlington	R
Green, Thos. C	Alamo	R
GOTT, W. L	Crawfordsville	H
Hamilton, A. N	Waynetown.	R
Hetrick, J	Crawfordsville	R
Hillis, James D	Darlington	R
Hogsett, John W	Mace	R
Hoover, Mary	Crawfordsville	—
Hopper, Milton D	Darlington	R
Hurst, Wm. J	Waynetown.	R
Hutchings, Benj. F.	Crawfordsville	R
Hyten, W. H	Parkersburgh.	R
Irwin, S. S	Crawfordsville	R
Jones, O. H	Mace	R
Keegan, E. W	Crawfordsville	R
Keeney, H	Linden	R
Kelly, D. M.	New Ross	R
King, B. F	New Ross.	—
Layne, P. M	Crawfordsville	E
Leech, Thos. F	Waveland	R
Lippencott, E	Crawfordsville	H
Mahoney, J. C	Ladoga	H
Miller, B. C.	Ladoga	R
Marsh, H. B	Crawfordsville	—
May, Willis L	Crawfordsville	R

Montgomery County—Continued.

Nomes.	*Post Office.*	*School.*	*Names.*	*Post Office.*	*School.*
Montague, F. T.	Crawfordsville	R	Straughn, John W	Parkersburg	R
Morgan, S. B	Crawfordsville	R	Straughn, K. K.	Browns Valley	R
Naylor, J. E	Darlington	R	Snyder, Ira J.	Crawfordsville	H
Olinger, David F.	Browns Valley	R	Smith, John W.	Crawfordsville	R
Olin, Leverett W.	Boston Store	R	Taylor, J. N	Crawfordsville	H
Owsley, Will W	Darlington	R	Thornberry, J. R.	Crawfordsville	R
Phillips, C. A.	Pleasant Hill	R	Tucker, Geo	Bowers	R
Purviance, Sam'l W	Crawfordsville	R	Vannuys, J. D	Waveland	R
Ristine, W. H	Crawfordsville	R	Waldon, C. H.	New Market	R
Russell, James P.	Waveland	R	Washburne, D. M	New Richmond	R
Shannon, James J	Shannondale	R	Washburne, E. P.	Linden	R
Steele, A. T.	Waveland	R	Wilhite, Mary	Crawfordsville	R

Regular, 68; Homeopathic, 4; Eclectic, 2; not reported, 3.

Morgan County.

Banta, W. H.	Martinsville	R	Murphy, William	Morgantown	R
Blackstone, B. D.	Martinsville	R	McAllister, Alex	Alaska	R
Bradley, J.	Martinsville	R	McNabb, Philip	Mooresville	R
Butler, W. H.	Morgantown	R	Monical, Grant	Brooklyn	R
Cure, Hiram H.	Martinsville	R	Nicholas, H. N.	Paragon	R
Davis, Mark	Monrovia	R	Perce, B. H.	Mooresville	R
Farr, Uriah H.	Martinsville	R	Potowff, W. A.	Eminence	R
Gravis, Charles	Martinsville	R	Reagan, A. W.	Mooresville	R
Green, James L.	Morgantown	R	Robbins, Clark	Mooresville	E
GREEN, ELIJAH V.	Martinsville	R	Robinson, H. C.	Martinsville	R
Griffith, R. C.	Morgantown	R	Rundell, S. W.	Cope	R
Grim, J. G.	Waverly	R	Schofield, S. H.	Martinsville	R
Hendrix, W. E.	Martinsville	R	Seaton, Charles	Martinsville	R
Henson, Theo.	Wilbur	R	Seaton, G. W.	Hall	R
Hodges, W. N.	Martinsville	R	Shirley, S. T.		R
Holman, E. C.	Martinsville	R	Snoddy, J. M.	Mooresville	R
Holaday, Thomas F.	Monrovia	R	Stucky, T. E.	Mooresville	R
Johnson, J. J.	Martinsville	R	Tarleton, R. H	Martinsville	R
Johnson, J. J., Jr.	Martinsville	R	Thompson, T. L.	Monrovia	R
Jones, H. C.	Hall	R	Tillford, B. W.	Martinsville	R
Jordan, Thomas	Martinsville	R	Tillford, Salem	Martinsville	R
Keiper, Geo. F.	Alaska	R	Van Sant, W. P.	Brooklyn	R
Kenedy, D. P.	Martinsville	E	Vincent, J. K.	Waverly	R
King, J. W.	Waverly	R	Wharton, J. O.	Waverly	R
Knight, J. H.	Paragon	R	Willen, Ira C.	Morgantown	R
Lindley, C. M.	Brooklyn	R	Williamson, Ralph	Paragon	R
Martin, Adeline	Martinsville	A			

Regular, 50; Eclectic, 1; Accoucheur, 1.

Newton County.

Beckner, James F	Kentland	R	Landon, H	Goodland	R
Beckner, L. H	Kentland	H	McCain, Richard C	Kentland	E
Caldwell, Samuel N	Pilot Grove	H	Peck, Thomas	Morocco	P.-M
Calvert, G. S	Mt. Airy	R	Ramsford, George	Lake Village	R
Chaffee, J. C. M.	Kentland	H	Ray, Mrs. M. T	Thayer	A
Coppock, Anson	Goodland	R	Recker, L. H	Morocco	R
Drake, Mrs. Theo	Kentland	A	Roadruck, Mrs. Cath	Morocco	A
Guy, Jasper	Kentland	—	Smith, E. G.	Kentland	E
HATCH, J. A.	Kentland	R	Smith, G. B.	Foresman	R
Humbert, Rebecca	Kentland	A	Triplett, Chas. E	Morocco	R
Humeston, Milton L	Goodland	R	Wescott, J. B	Goodland	H
Kenoyer, Jane F	Kentland	A			

Regular, 11; Physio-Medical, 1; Homeopathic, 4; Eclectic, 2; Accoucheur, 5; not reported, 1.

Noble County.

Names.	*Post Office.*	*School.*
Adair, William A	Swan	R
Bartley, Robert W	Wawaka	E
Bassett, Wm	Kendallville	H
Bowrie, D. R	Ligonier	H
Brown, J. S.	Kendallville	P.-M
Cass, George W.	Ligonier	R
Cessna, J. P.	Avilla	R
Depew, E. W	Wolf Lake	R
Dunlap, Robert	Kendallville	E
Ellis, C. F	Ligonier	H
Gantz, John	Cromwell	E
Gard, James F	Ligionier	E
GILBERT, JOS. L	Kendallville	R
Green, W	Albion	R
Hays, John W	Albion	R
Knepper, E. W	Ligonier	E
Kesler, R. S.	Avilla	H
Lemmon, S. W	Albion	R
Maloney, T. C	Avilla	R
Moore, W. B	Meriam.	R
Palmiter, C.	Ligonier	R
Pickett, C. M	Albion	H
Robison, M	Wolf Lake	E
Ruth, H	Kendallville	E
Schlaughterback, E	Ligonier	R
Seymour, C. A	Wawaka	R
Shobe, W. A	Ligonier	R
Smith, Jacob F.	Rome City	R
Shock, H. W	Wolf Lake	R
Silsby, Josephine	Kendallville	E
Teal, Norman	Kendallville	R
Trader, J. S.	Brimfield.	R
Tucker, H. G	Cromwell	R
Williams, Nathan	Kendallville	E
Williams, S. T	Kendallville	R
Williams, Robert B	Rome City	R

Regular, 21; Homeopathic, 5; Eclectic, 9; Physio-Medical, 1.

Ohio County.

Alden, Thos. E	Rising Sun	R
Craig, Wm. H	Rising Sun	R
GILLESPIE, W. R	Rising Sun	R
Holbert, W. H	Bear Branch	R
McLefresh, W. W	Milton	R
Rockafellow, W. A	Milton	E
Spaulding, Jno. R	Hartford	R
Stevenson, Geo. A	Rising Sun	R
Sullivan, Wm. H	Rising Sun	R

Regular, 8; Eclectic, 1.

Orange County.

Baker, James	Millersburg	R
Bowles, L. S	Paoli	R
Boyd, Charles	Livonia	R
Brent, William	Newton Stewart	R
Carter, Theophilus	Orangeville	R
Ellis, William	Young's Creek	R
Gilliatt, W. H	Young's Creek	R
Hazelwood, Green	Chambersburg	R
Hazelwood, G. R.	Valeene.	R
Hazelwood, Lee	Valeene.	R
HON, U. H.	Paoli	R
Hon, Benton J	Orleans	R
Kochenour, W. P.	Paoli	R
Lindley, Laban	Paoli	R
Lingle, R. W	Orleans	R
Laughlin, E. D	Orleans.	R
May, G. W	Orleans.	R
Ritter, John A., Sr.	Orangeville.	R
Ritter, John A., Jr.	West Baden	R
Ritter, Thomas	Orangeville.	R
Ryan, Samuel	French Lick	R
Ryan, Wm. E.	French Lick	R
Sherrod, James H.	Paoli	R
Sherrod, Wm	New Prospect	R
Smith, E. W	Newton Stewart	R
Smith, James H	Newton Stewart	R
Still, A. C.	Syria	R
Story, Mary	French Lick	A
Trimble, Emily	Paoli	A

Regular, 27; Accoucheur, 2.

Owen County.

Belles, J. T	Spencer.	R
Baker, Charlotte T	Spencer.	R
Coble, Jacob	Spencer.	E
Cox, N. D	Spencer.	R
Carney, J. W	Cloverdale	R
Figg, John S	Spencer.	R
Fryar, Lydia	Vandalia	R
Gilbert, William H	Farmers' Station	R
Gantz, Thomas.	Freedom	R
Goss, J. M	Freedom	R
Gray, O. F	White Hall	R
Hester, U. A. V.	Arney.	R
Horn, Amos H	Cataract	R
Jones, Jesse M	Cataract	R
Kennedy, John	Gosport.	R
Leonard, Rebecca	Cataract	R
Livingston, J. J	White Hall	E
Maddux, W. B. S	Vandalia	R
Medaris, J. H	Cataract	E
Medaris, S. D	Jordan Village	E
McDonald, D. H	Quincy	R
Minich, A. J	Freedom	R
Mullinix, E. N	Spencer.	E
Mullinix, M. G	Spencer.	E
McKelvey, S. R.	Patricksburg	R
Naanes, G. W	Arney.	R
Osgood, M. G	Gosport.	E
Pierson, Allen	Spencer.	R
Richards, S. D	Patricksburg	R
Ritter, C. L	Gosport.	R
Schell, F. A.	Spencer.	E
Slown, J. N.	Patricksburg	R
Smith, J. W.	Gosport.	R
Smith, S. E	Gosport.	R
Stuckey, J. M.	Gosport.	R
Stuckey, F. V.	Gosport.	R
WILES, WM. V	Spencer.	R
Wiles, F. M.	Spencer.	R
Williams, John A	Patricksburg	R
Wooden, J	Gosport.	R

Regular, 32; Eclectic, 8.

Parke County.

Names.	*Post Office.*	*School.*
Alvord, Hiram	Rockville	H
Baldridge, John H	Rosedale	E
Baldridge, Robert A	Roseville	E
Boyd, James M	Annapolis	R
Black, R. C	Catlin	R
Ball, James M	Judson	R
Cross, Joseph F	Rockville	R
Caplinger, Charles A	Marshall	R
Crooks, James	Bridgeton	R
Crafton, O. F	Montezuma	R
Campbell, Annie B.	Rockville	R
DeVerter, George T	Howard	R
Dare, John S	Bloomingdale	R
Daly, George P	Rockville	R
Darroach, Wm. P	Hollandsburgh	R
Dooley, Rufus	Armiesburgh	R
French, John S.	Judson	R
Garrigus, John J	Sylvania	R
Goldsbury. John H	Annapolis	R
Goss, Marion	Bellmore	R
Gillum, William H	Rockville	R
Harvey, John W	Mansfield	R
Hudson, B. F	Montezuma	R
Henderson, J. F	Waterman	R
Harvey, Isaac C	Russell's Mills	E
Hollaway, Thomas	Rosedale	R
Jones, Norman L.	Waterman	R
Johnston, Marion	Bridgeton	R
Larue, Benjamin	Portland Mills	R
Lynch, J. Y.	Rosedale	R
MORRIS, CHAS. C	Rockville	R
Martin, Alonzo.	Bellmore	R
Mendenhall, E. W	Sylvania	E
Mendenhall, B	Bloomingdale	R
Mall, William D	Rockville	R
Morris, Aaron W	Coloma	R
Mater, J. D	Bridgeton	R
McKey, Richard H. W	Russell's Mills	R
McCune, George W	Montezuma	R
McCord, Samuel H	Judson	R
Orsborne, James H	Portland Mills	R
Odell, J. L	Judson	E
Powell. Bucher B.	Marshall	E
Rice, Harrison J	Rockville	R
Redman, T. B	Waterman	R
Robinson, W. M	Howard	R
Roberts, Charles H	Rockville	H
Smith, William A	Armiesburgh	R
Thomas, W. D	Rockville	R
Tucker, James P	Annapolis	R
Tomlinson, A. D	Bloomingdale	R
Vancleve, Elijah L	Catlin	R
White, S. S	Judson	R
Williamson, W. N	Sylvania	R
Welch, John A	Lena	R
Wing, C. H	Jessup	R
Williamson, A. A	Russell's Mills	R

Regular, 49: Eclectic, 6; Homeopathic, 2.

Perry County.

Anderson, Charles T	Lilly Dale	R
Allard, Mary	Leopold	A
Adye, George F.	Troy	E
Allen, J. T	Adyville	R
Bimiss, John S	Cannelton	R
Bennett, James B	Derby	R
Borntraeger, Jacob	Cannelton	E
Bacon, J. T	Troy	R
Boucker, Charles M	Tell City	E
Cluthe, William	Tell City	R
Carmichal, Mrs. John	Branchville	A
Dumsing, John W	Tell City	R
Daulton, Johanna	Cannelton	A
Doolittle, Mary A	Doolittle's Mills	A
Ebersald, Mrs. Mary	Tell City	A
Endrus, Fredrickre	Troy	A
Foster, Hiram	Foster's Ridge P. O.	R
Hendrickson, A. M. D	Rono	R
Huffman, M. V	Leopold	E
Hix, Wm. R	Tell City	E
Herman, Eva Rosa	Tell City	A
Harberville, Eliz'b'h	Apalona	A
Howard, M. M	Cannelton	R
Jehlie, Cacilla	Tell City	A
Lomax, William	Bristow	R
Litkenhus, Mary C	Tell City	A
Ladd, C. W	Cannelton	R
Letherland, Sarah	Cannelton	A
Lee, John H	Rome	R
MITCHELL, F. A	Cannelton	R
Myer, Joseph	Rono	R
Meeks, Louis	Branchville	E
Miller, Lucinda	Don Juan	A
Marshall, Wm. C	Cannelton	R
Noble, Nancy	Ranger P. O	A
Shellhase, Fred. W	Tell City	H
Slaughter, James B.	Ranger P. O	R
Saalmann, Dorthea	Branchville	A
Taylor, James J	Tell City	R
Wedding, M. F	Rome	R
Yaggie, Caroline	Leopold	A

Regular, 19; Eclectic, 6; Homeopathic, 1; Accoucheur, 15.

Pike County.

Adams, J. R.	Petersburg	R
Agee, C. J.	Stendal	R
Ashby, Elizabeth	Arthur	A
Byers, A. R.	Petersburg	R
Brust, Augusta	Stendal	A
Basinger, T. W.	Oatsville	R
Beardsley, J. M.	Winslow	R
Corn, Nathaniel	Augusta	R
Coleman, J. W.	Augusta	R
Carleton, S. B.	Petersburg	E
Camp, J. H.	Spurgeon	—
Daniels, D. H.	Otwell	R
DeTar, David	Winslow	R
Drake, J. B.	Otwell	E
DUNCAN, J. B.	Petersburg	R
Furgeson, J. W.	Pikeville	R
Furgeson. Thos.	Spurgeon	R
Fullenwider, C. H.	Petersburg	R
Falls, P. W.	Otwell	E
Godwin, John W.	Otwell	R
Hornbrook, J. T	Union	R
Hawkins, John	Petersburg	R
Holloway, W. C.	Petersburg	H
Harris, R. W	Delectable Hill	R

Pike County—Continued.

Names.	*Post Office.*	*School.*
Harrison, J. H	Augusta	—
Hillburn, Rozina	Glezen	A
Ireland, G. L	Winslow	R
Kepley, Wm.	Petersburg	E
Kime, R. R.	Union	R
Leslie, Alexander, Jr.	Petersburg	R
Link, W. H.	Petersburg	R
Lange, J. T.	Spurgeon	—
Osborn, W. R.	Augusta	R
Oxby, M. E.	Augusta	A
Phillips, R. W.	Union	R
Palmer, E. H.	Petersburg	—
Rhoads, A. J.	Pikeville	—
Reeves, T. L.	Long Branch	—
Smith, J. T.	Glezen	R
Slone, L. J	Glezen	—
Schenck, H. F	Oatsville	R
Thomas, M. C.	Petersburg	E
Taylor, Wash.	Survante	R
Taylor, J. N.	Velpen	R
Woolsey, M. L	Arthur	A
Williamson, G. L.	Union	R

Regular, 28; Eclectic, 5; Homeopathic, 1; Accoucheur, 5; Not reported, 7.

Porter County.

Adkinson, Lyman	Kouts	R
Allen, Lottie A.	Valparaiso	R
Blakstone, J. K.	Hebron	R
Beer, Henry M.	Valparaiso	R
Cattron, William O.	Valparaiso	H
Cooter, Henry C.	Valparaiso	R
Dille, Mary J.	Valparaiso	A
Ellis, I. E.	Kouts	E
Fairchilds, Nelson J.	Tassinong	E
Fairchilds, Mary J	Tassinong	A
Green, Henry	Chesterton	R
Hemott, Jno. V.	Valparaiso	R
Hubbard, R. B.	Hebron	E
Kellogg, Chas. J.	Valparaiso	E
Kester, Josiah	Boongrove	R
Letherman, Andrew P	Valparaiso	R
Letherman, Jos. H	Valparaiso	R
LORING, DAVID J.	Valparaiso	R
Lange, Frederica	Valparaiso	A
Marr, Dolos D.	Chesterton	R
Miller, Robt. E.	Chesterton	R
Mullen, Hugh E	Valparaiso	R
McCarthy, Jno. F.	Valparaiso	R
Newland, Jas. H	Valparaiso	R
Pratt, Samuel R	Hebron	R
Pagin, Samuel	Valparaiso	E
Sayles, Marshall F.	Valparaiso	H
Wood, Oliver S.	Hebron	E
Welch, Benjamin A.	Tassinong	E
Yohn, William A.	Valparaiso	R

Regular, 18; Homeopathic, 2; Eclectic, 7; Accoucheur, 3.

Posey County.

Allen, S. R	Cynthiana	E
Baldwin, W. H	Olivers	R
Brydon, J. F	Griffin.	E
Bitz, L. B.	Blairsville	R
Bucklin, G. W	New Harmony	R
Cary, W. P	Mt. Vernon	R
Cosby, B. L	Cynthiana,	R
Cross, Wm	Griffin.	R
Deutsdorff, H. B.	Parker Settlement	R
Dickout, Mrs	Hickory Branch	A
Dixon, R. S.	West Franklin	H
Eaton, John W	Cynthiana	E
Elliott, C., jr	Poseyville.	R
Elliott, C., sr	Poseyville	R
Flucks, Carl	St. Wendel	R
Gregory, J. C	Farmersville	R
Goodwin, E. J	Solitude.	R
Gettings, C. C.	Mt Vernon	R
Gudgel, J. E	Cynthiana	R
Hensler, Ernst	West Franklin	R
Harper, John	Mt. Vernon	R
Henderson, S. C.	St. Phillips	R
Hicks, C	Caborns.	R
Holton, Wm. M.	New Harmony	R
Huber, Catherine	Griffin Station	A
Huston, J. C	Grafton	R
Kelley, F. H	Stewartsville	R
Kisner, Ann E	Mt. Vernon	A
Krawsgrill, D.	Wadesville	R
McDonlad, D.	New Harmony	R
McCoy, C. Mrs	County	A
Mobly, N. Mrs	Griffin Station	A
Montgomery, D. B	Cynthiana	R
Neal, D	New Harmony	R
PEARSE, S. H	Mt. Vernon	R
Peckenpaugh. G. R.	Mt. Vernon.	R
Powell, J. W	Mt. Vernon	R
Ramsey, D. C.	Mt. Vernon	R
Rawlings, S. O	New Harmony	R
Rutledge, J. C	Poseyville.	R
Rutter, John	Cynthiana	E
Shultz, O. T.	Mt. Vernon	R
Saalman, Mrs. D	Mt. Vernon	A
Smyth, John A	Mt. Vernon	R
Smith, E. S	Farmersville	R
Sanders, C. H	Caborns.	H
Smyth, Richard.	Mt. Vernon	R
Spencer, E. V.	Mt. Vernon	R
Stitt, Mary	New Harmony	A
Weever, J. B	Mt. Vernon	R
Welborn, G. W	Stewartsville	R
Williams, J. B	Wadesville	R
Woodry, Albert.	Poseyville.	E
Welch, Walter	Mt Vernon	R
Wayland, Mrs. E	County	A
Young, T. B.	Poseyville.	R

Regular, 40; Homeopathic, 2; Eclectic, 5; Accoucheur, 8.

Pulaski County.

Names.	*Post Office.*	*School.*	*Names.*	*Post Office.*	*School.*
Brown, Stephen Ira	Francisville	R	Moss, D. F	Winamac	R
Buck, F. G	Rosedale	R	Osborn, James	Star City	R
Gordon, Moses M.	Francisville	R	Patterson, H. E.	Winamac	R
Houstan, C. F	Pulaski	R	Reynolds, U. S	Monterey	R
Hovions, R. D	Francisville	R	Stevens, — —	Monterey	R
James, B. F.	Medaryville	R	Sharrer, John C	Francisville	R
Jones, Horace	Medaryville	R	Thomas, F. B	Winamac	R
Kelsey, William, Sr	Monterey	R	THOMAS, J. J	Winamac	R
Kelsey, William, Jr	Monterey	R	Thompson, G. W	Winamac	R
Kittenger, H	Winamac	R	Thompson, W. H	Winamac	R
Mattingly, Robert	Francisville	R	Wright, W. G	Winamac	R

Regular, 22.

Putnam County.

Allen, Chas. A	New Maysville	R	Morrison, John F.	Greencastle	R
BENCE, GEO. W.	Greencastle.	R	Mullinix, P.	Cloverdale	R
Batman, W. F	Roachdale	R	McNutt, George T	Putnamville	R
Baird, J. W.	Russellville	R	Newgent, R. P	Morton	R
Bellamy, Mrs. Mary	Greencastle	A	Prichard, Louis.	Cloverdale	E
Cully, J. F	Bainbridge	R	Pitchlynn, H. R	Greencastle.	R
Cross, J. B	Bainbridge	R	Preston, A. G	Greencastle.	R
Cline, L. C	Bainbridge	R	Preston, J. L	Cloverdale	R
Colliver, R. T.	Bainbridge	R	Prichard, W. K.	Cloverdale	R
Dyer, Hiram G	Cloverdale	R	Purcell, W. M	Reelsville	R
Devore, H. V	Greencastle	R	Robinson, Josiah H	Fillmore	R
Evans, Ezra B	Greencastle	R	Robinson, James B.	Fillmore	R
Fordice, J. H	Russellville	R	Rogers, Dudley	Greencastle	R
Farver, Geo. W.	Groveland	R	Robert, John	Reelsville	—
Farris, E. G.	Clinton Falls	R	Stevens, H. G	Raccoon	R
Fisher, Samuel	Greencastle	R	Stallard, J. J	Russellville	R
Farrow, A. C	Greencastle	R	Smythe, G. C	Greencastle	R
Fulton, Richard E	Bainbridge	R	Stawley, Logan.	Fincastle	R
Ferrand, Mrs. M. J	Hamricks.	A	Scott, Chas. E	Greencastle	R
Grimes, James B	Mt. Meridian	R	Slavens, John	Brick Chapel	R
Hopwood, W. C.	Greencastle.	R	Swindall, D. D	New Maysville	R
Hanna, L. M	Greencastle.	R	Shenill, Nancy C	Belle Union	A
Harris, W. C	Carpentersville	R	Stockwell, Geo. W	Reelsville	R
Hamilton, R. S.	Portland Mills	R	Spurgeon, Frank	Mt. Meridian	R
Hawkins, E.	Belle Union	R	Smythe, Albert E.	Greencastle.	R
Hill, Wm. D	Greencastle	H	Stallard, John S	Morton	R
Knight, John M	Greencastle	E	Taylor, G. W	Greencastle	H
Layman, D. W	Putnamville	R	Taylor, Mary J	Greencastle	H
Larue, Benjamin	Portland Mills	R	Tinsley, B. A	Darter	R
Leatherman, John R	Manhattan	R	Young, Elias	Reelsville	—
Milligan, T. F	Roachdale	R	Zane, Thomas M	Reelsville	R

Regular, 51; Homeopathic, 3; Eclectic, 2; Accoucheur, 3.

Randolph County.

Alexander, R. W.	Winchester	P.-M	Conti, J. L	Deerfield	R
Alexander, Prudence	Winchester	P.-M	Cloyd, S. H	Saratoga	—
Bosworth, R.	Winchester	R	Carrier, Elizabeth	Farmland	A
Beverly, J. E	Winchester	R	Davis, L. N.	Farmland	R
Bruce, G. W.	Winchester	R	Dick, P. B	Union City	E
Botkin, J. W.	Winchester	R	Evens, J. J.	Winchester	R
Botkin, T. W.	Unionsport	E	Evens, George S	Saratoga	R
Blair, Jas. S.	Lynn	R	Evens, C. S.	Union City	R
Bartholemew, C. G.	Union City	R	Farquhar, A. H	Ridgeville	R
Berry, J. S.	Spartansburg	R	Fager, C. M.	Fairview	R
Baldwin, G. C.	Bloomingsport	R	Franks, H. P.	Losantville	R
Baugh, Mary	Saratoga	A	Fields, W. R.	Deerfield	E
Carver, J. M	Winchester	R	Fite, C. H.	Modoc	E
Chenowith, J. T.	Winchester	R	Grabill, J. D.	Union City	H
Cox, Cyrus	Lynn	R	Grimes, Wm. M.	Union City	E
Commons, W	Union City	R	Huddleston, A. F.	Winchester	H
Chenowith, W. T.	Windsor	R	Hunt, P.	Farmland	E
Coggeshall Wm. R.	Carlos City	E	Hunt, H. C	Trenton	E

Randolph County—Continued.

Names.	*Post Office.*	*School.*	*Names.*	*Post Office.*	*School.*
Hetsler ——	Union City	R	Proctor, J. A	Union City	P.-M
Harrison, H.	Union City	R	Parsons, R. J	Union City	P.-M
Hiatt, John A.	Ridgeville	R	Rodgers, A. G.	Parker	R
Hiatt, C. C.	Winchester	E	Reynolds, F. A.	Ridgeville	R
Hamilton, R. W.	Lynn	R	Ruby, S. B	Union City	R
Hinshaw, Sereena	Winchester	A	Riekard, W. A	New Pittsburg	E
Hough, Wm. A	Winchester	P.-M	Riekard, C. A.	New Pittsburg	A
Heiner, John	Arba	R	Reeves, John	Union City	E
Keener, J. M.	Farmland	—	Rynard, G.	Union City	R
King, Jas. V	Castle	—	Robbins, W.	Trenton	E
Kinney, J. F.	Carlos City	E	Remmel, Sylvania	Winchester	P.-M
MARKLE, J. E.	Winchester.	R	Smith, W. G.	Winchester	R
Marquis, W. H	Bartona	E	Smith, J. R.	Winchester	R
Meek, Jos. R	Arba	R	Smith, C.	Farmland	E
McFarland, N.	New Pittsburg	E	Stewart, W. J.	Union City	R
McSherly ——	Goodview	R	Shoemaker, W. J.	Ridgeville	R
Nixon, John	Farmland	R	Tisor, Wm. R.	Rural	R
Noffsinger ——	Union City	E	Thompson, G. W.	Union City	E
Orr, David	Parker	R	Thompson, Val.	Union City	E
Owen, J. K	Harrisville	R	Trent, I. N.	Losantville	R
Purcell, John	Union City	R	Yorgin, H. H	Union City	R

Regular, 46; Eclectic, 19; Physio-Medico, 5; Homeopathic, 2; Accoucher, 4.

Ripley County.

Abbott, June	South Milan	E	Miller, R. H	Friendship	R
Abbott, Mano	Milan	E	Miller, A. G	Elrod	E
ANDERSON, JAMES	Versailles	R	Olmstead, R. T	Rexville	R
Burns, Mahala C	Lock Springs	A	Parsons, George E	Rei	E
Brenton, John T	Osgood	R	Redlon, Daniel	Pierceville	R
Brown, Charles M	New Marion	R	Rodgers, E. D	Milan.	R
Clark, Freeman	Rei	R	Roberts, Jerry	Holton	R
Cass, C. H.	Holton	E	Robinson, J. M	Versailles.	R
Davis, J. R	Morris	R	Schlosser, George F	Sunman.	—
Freeland, John P.	Sunman	R	Schwartz, Annie	Napoleon	A
Freeman, E. D	Osgood	R	Sprœssing, Amelia	Versailles.	A
Givin, T. E	Elrod	R	Sweezey, John M	Cross Plains	E
Hess, John N	St. Magdalene	R	Terry, Martha	Sunman	A
Hicks, Bruce R.	Napoleon	P.-M	VanAntwerp, B. F	Honey Corner	—
Hicks, John C	Napoleon	P.-M	Vance, Julia	Morris	A
Horton, William	Pierceville	R	Vest, M. C	Lincolnville	R
Jerman, W. D	Batesville	R	Vincent, E. B.	Sunman	R
Jones, John G	Versailles.	R	Winter, August.	Friendship	A
Joseph, Alexander	Napoleon	R	Young, Robert W	South Milton	—
Lamb, James T.	Cross Plains	E	Yitake, Joseph	Napoleon	R

Regular, 20; Eclectic, 7; Physio-Medical, 2; Accoucheurs, 5; Not reported, 4.

Rush County.

Arnold, John	Rushville	R	McMahan, S. W.	Rushville	R
Arnold, W. W	Rushville	R	Newlin, S. C	New Salem	R
Axline, John A.	Raleigh	R	Pollitt, F. M	Milroy.	R
Bogart, H. J	Carthage	R	PUGH, WM. A	Rushville.	R
Barnum, W. E	Manilla	R	Parsons, C. H.	Rushville	R
Dillon, J. C.	Knightstown	R	Redding, Jacob.	Carthage	R
Drake, F. J	Carthage	R	Ross, L. G.	Raleigh	R
Elliot, H. H.	Glenwood	R	Riley, S. H	Milroy.	E
Gilbert, C. H	Rushville.	H	Rogers, W. R.	Milroy.	E
Graham, A. E.	Richland	R	Rucker, Thomas H	Arlington	R
Green, J. W.	Arlington	R	Smith, W. H	Rushville.	R
Green, J. C	Arlington	R	Spurrier, J. H.	Rushville	R
Green, Lot	Occident	R	Spencer, E. T	Manilla	E
Hargrove, W. S.	New Salem	R	Sexton, Marshall	Rushville.	R
Hackleman, F. G.	Rushville.	R	Sexton, J. C.	Rushville	R
Hubbard, W. H.	Manilla	R	Sparks, J. B.	Carthage	R
Inlow, J. J	Manilla	R	Thomas, S. C	Milroy	R
Johnston, W. A.	Raleigh	E	Tevis, J. L	Moscow	R
King, F. B	Homer.	R	Vannuys, D. H	Falmouth.	R
Linn, H. G	Rushville.	H	Welliver, J. E	Rushville.	H
Moffett, John	Rushville.	R	Wright, Geo.	Sexton	R
Megee, Omer	Rushville	R			

Regular, 34; Homeopathic, 3; Eclectic, 4.

Scott County.

Names.	*Post Office.*	*School.*	*Names.*	*Post Office.*	*School.*
Blocher, J. B	Holman Station	R	Lothrop, A. H	Lexington	R
Casey, H. R.	Austin	R	NICKLES, J. M	Scottsburg	R
Davis, Solomon	Lexington	R	Paswater, Jno. G.	Lexington	R
Green, W. E	Lexington	E	Rogers, Lion M.	Austin	R
Houghland, M. E.	Vienna	R	Sawer, Jno. A	New Frankfort	R
Hennessy, E. Z.	Scottsburg	R	Smith, Hilton W	Scottsburg	R
Hobbs, Jane	Little Yourk	A	Watson, Jno. M	Scottsburg	R

Regular, 12; Eclectic, 1; Accoucheur, 1.

Shelby County.

Abernathy, A. A	Morristown	R	Lewis, ——	Lewis Creek	—
Adams, J. M	Noah	R	Maddox, J. F.	Shelbyville	E
Baylor, W. K	Waldron	E	McCain, T. J	Waldron	R
Bowlby, J. B	Noah	R	McFadden, W. G	Shelbyville	R
Carter, J	Morristown	R.	McGaughey, J. E.	Morristown	R
Comstock, A. J.	Marietta	R	Perry, J	Shelbyville	R
Comstock, H	Smithland	R	Perry, C. P	Gwynville	R
Conley, H. M	Flat Rock	R	Parrish, J. W.	Shelbyville	R
Crippen, E. H	Blue Ridge	R	Pierson, W. M	Fountaintown	E
Daily, G. W	Freeport	R	Raynes, R. D	Lewis Creek	R
Drake, I. H.	Shelbyville	R	Robinson, C. A	Freeport	R
DRAKE, MORRIS	Shelbyville	R	Robertson, J. B	Fairland	R
Floyd, R. M	Shelbyville	R	Robbins, J. P.	Shelbyville	R
Fleming, G. W	Shelbyville	R	Richardson, E. J	Fountaintown	R
Ford, W. M.	Mt. Auburn	E	Rubush, T. R.	London	R
Green, W. F	Shelbyville	R	Saulsberry, S. H	Morristown	E
Gordon, W. B	Manilla	R	Sanford, J. H.	Shelbyville	E
Gilmore, M. R	Boggstown	R	Snider, J. W	Fairland	R
Inlow, I. W.	Blue Ridge	R	Stewart, J. K.	Fairland	R
Jenkins, J. R.	Waldron	R	Stewart, J. B	Marietta	E
Jones, T. S	Flat Rock	R	Smith, H	Smithland	R
Kennedy, T. C	Shelbyville	R	Strickler, S. L	Boggstown	E
Knapp, W. T	Shelbyville	H	Taylor, J. F	Sulphur Hill	E
Keeling, W. W	Sulphur Hill	E	Tull, E. N	Fairland	R
Kennedy, S. A	Winterwood	R	Trees, I. W	Smithland	R
Kennedy. S. A	Shelbyville	R	Washburn, R. R	Waldron	R
Larimore, J. M.	Carrolton	R	Winters, G. G	Shelbyville	H
Lucas, I. N	Shelbyville	H	Whetzel, T. F.	Morristown	R
Leech, E. W	Shelbyville	E	Wolf, J. G	Morristown	R
Lowden, John	Carrollton	E	Wray, Hardy	London	E

Regular, 43; Homeopathic, 3; Eclectic, 13; not stated, 1.

Spencer County.

Ambrose, H. L	Rockport	R	John, B. B	Newtonville	E
Anderson, E. M	Huff	R	Johnson, Elbert	Oakland	R
Austin, Thomas R	Chrisney	E	Johnson, T. J.	Dale	R
Banks, H. G	Grandview	E	Jones, Wm	Gentryville	R
Butler, James M	Huff	E	James, J. B	Buffaloeville	E
Bornwasser. Dora	Midway	A	Killian, J. L	Eureka	R
Beeler, W. R	Rockport	R	Littlepage, S. B.	Rockport	R
Bryant, James H	Gentryville	R	Lee, H. A	Newtonville	R
Bryant, W. S	Dale	R	Medcalf, A. F.	Dale	R
Bryant, J. B	Santa Claus	R	Milner, I. L.	Rockport	R
Billart, G. C	Chrisney	R	Myler, J. M.	Eureka	R
Curry, H. M	Newtonville	R	Moslowsky, Felix	Maria Hill	R
Camp, W. F.	Gentryville	E	Murray, R. W	Rockport	R
Dailey, J. M	Rockport	R	McKasson, J. W	Gentryville	E
Dyer, A. S	Huffman	E	McCoy, G. W	Chrisney	R
Ehrman, E. D	Rockport	H	McCoy, L. H	Lake	R
Ely, John E	Midway	R	Reavis, W. J	Lake	R
Evans, Melissa	Newtonville	A	Romig, M	Rockport	A
Gabbert, C. W	Rockport	R	Smith, J. R	Chrisney	E
Gengelbach, E. E	St. Meinrad	E	Schweitzer, J. J.	Santa Claus	R
HACKLEMAN, F. M.	Rockport	E	Turpin, James	Rockport	E
Harrison, E. P	Patronville	E	White, Arthur	Rockport	R
Hunter, S. W	Oakland	R	Worsley, George	Grandview	R
Hermanni, W. A	Fulda	H	Wright, Thomas	Midway	R.
Hammond, D. M	Grandview	R	White, John T	Grandview	R.
Hartley, H. H	Eureka	R	Williams, W. H	Gentryville	E
Harrison, J. A	Pigeon	R	Williams, Geo. S	Enterprise	R

Regular, 35; Eclectic, 14; Homeopathic, 2; Not stated, 3.

Starke County.

Names.	*Post Office.*	*School.*
Abner, John R	Grovertown	E
BONAR, SAMUEL S	Knox	R
Bonar, M. C	Knox	R
Bradford, Sarah	Knox	A
Burson, A. H	Hamlet	R
Conner, L. E	Knox	R
Dunfee, Joseph	Knox	E
Dunfee, Joseph M	Knox	E
Garner, Henry	Knox	R
Glazebrook, L. D	San Pierre	R
Henderson, A. H	Knox	E
Hunt, Z. P	Ora	E
Perry, William	North Judson	R
Taylor, Lydia	Hamlet	A
Townley, James	San Pierre	E
Weir, William H	North Judson	E
Yeley, S. S	Knox	R

Regular, 8; Eclectic, 7; Accoucheur, 2.

Steuben County.

Names.	*Post Office.*	*School.*
Abbott, Lyman	Fremont	R
Beiry, I. E	Pleasant Lake	R
Brown, D. N	Hamilton	E
Byall, H. M	Gretz	R
Bowen, M. M	Angola	R
Cameron, J. F	Hamilton	R
Clay, M. F	Salem Center	E
Eastman, A	Jamestown	E
Fuller, S. H	Pleasant Lake	R
Fenton, D. W	Ray	R
Goodale, Chas. W	Metz	R
Griffin, D. B	Angola	R
Hagerty, J. L	Fremont	R
Hamilton, C	Hudson	R
Keeslar, Geo	Orland	R
Leas, E. R	Angola	H
Lewis, J. D	Flint	R
Morrison, T. R	Hudson	R
Moore, Jno. H	Angola	E
Miller	Fremont	H
McNabb, T. B	Fremont	R
Rausbury, M. V	Salem Center	R
Robinson, E. S	Fremont	E
Simmons, E. B	Fremont	R
Schaeffer, Sarah A	Fremont	A
Stauffer, E. R	Metz	R
Shaw, M. F	Angola	R
Sherman, Fred	Flint	E
Searles, J. D	Fremont	E
Taylor A. E	York Center	R
Upton, Hugh	Turkey Creek	R
Waller, W. H	Angola	R
WOOD, H. D	Angola	R
Williams, T. B	Angola	R
Wood, T. F	Metz	R
Wood, S. A	Angola	R
Weicht, Wm. C	Angola	H
Wallace, J. F	Orland	R
Wilkinson, J. J	Orland	R

Regular, 28; Eclectic, 7; Homeopathic, 3; Accoucheur, 1.

St. Joseph County.

Names.	*Post Office.*	*School.*
Armentrout, J. C	South Bend	R
Applegate, Charles H	South Bend	R
Arlington, J. W	Walkerton	R
Baker, O. W	Mirth	—
Borough, J	Mishawaka	H
Brown, J. R	Sumption Prairie	R
Brewer, Margaret		A
Bort, Margaret	Mishawaka	A
Bricker, Boyd N	North Liberty	R
Buchelder, I. J	Mishawaka	R
Butterworth, W. W	Mishawaka	R
Campbell, A. S	North Liberty	—
Carpender, G. W	South Bend	R
Cassidy, J	South Bend	R
Charlesworth, D. M	New Carlisle	—
Davis, Josephine	New Carlisle	R
Dayton, Daniel	South Bend	R
Daugherty, C. A	South Bend	E
Denslow, E. H	South Bend	P.-M
Denslow, James G	South Bend	P.-M
Dunning, L. H	South Bend	R
Drollinger, E. M	South Bend	E
Endley, James F	Walkerton	E
Fast, E. E	Lukeville	R
Fink, Henry A	Woodland	R
Greene, James B	Mishawaka	E
Grimes, James F	Mishawaka	E
Grimes, J. H	Mishawaka	E
Ham, Levi J	South Bend	R
Hanford, William H	South Bend	P.-M
Hand, L. M. Mrs		A
Harris, Joel	New Carlisle	E
Harris, Robert	South Bend	R
HITCHCOCK, W. W	South Bend	R
Hool, Joseph, Sr	South Bend	—
Huntsinger, A	Mishawaka	E
Ihrig, F. M	South Bend	E
Jackson, Mary	Walkerton	E
Jewell, Mary	Woodland	—
Kelnar, A. M	Mishawaka	E
Kittring, J. A	South Bend	R
Kilmer, S. L	South Bend	R
Kam, Anna	Mishawaka	—
Lang, Anna	Mishawaka	—
Mauer, John	South Bend	—
McAlister, E. W	South Bend	R
McCool, A. W	Walkerton	—
Myers, C. H	South Bend	R
McGill, J. A	South Bend	R
Miller, J. C	South Bend	R
Miller, Martin	Walkerton	H
Mitchell, Mrs. H	South Bend	—
Manchester, H. D	South Bend	H
Montgomery, H. T	South Bend	R
McDonald, T. T	New Carlisle	R
Moore, Charles W	Walkerton	R
Moore, John	Lakeville	R
Moore, Robert	Lakeville	R
Pagin, Lewis	South Bend	—
Partridge, J. M	South Bend	H
Pefenni'er, J	South Bend	R
Pierce, William H	Osceola	R
Phillips, Louisa	Mishawaka	—
Russell, Clara L	Mishawaka	H

St. Joseph County—Continued.

Names.	*Post Office.*	*School.*
Richmond, C. M	Walkerton	E
Rupp, P. E	South Bend.	R
Shafer, G. J.	North Liberty	E
Shawk, Joseph	Terre Coupee	—
Shwertz, France J	Mishawaka.	—
Smith, F. W.	Walkerton	R
Sawyer, F. M	Lakeville.	E
Sack, John C	South Bend.	R
Smith, C	South Bend	—
Todd, James		—
Underworth, H. A	Walkerton	—
Ullery, Stephen H	South Bend.	E
VanPelt, Ryan	Mishawaka.	R
VanRiper, Abram	New Carlisle	R
Varier, J. A	North Liberty	R
Wickam, W. A	South Bend.	E

Regular, 36; Eclectic, 10; Homeopathic, 4; Physio-Medical, 3; Accoucheur, 3; Not reported, 16.

Sullivan County.

Briggs, Chas. F	Sullivan	R
Brown, Nathan H	Buell	R
Bedwell, Theodore S	Pleasantville	R
Bennett, J. H.	Farmersburg	R
Cushman, Arbaces	Graysville	R
Crouder, R. H	Sullivan	R
Crouley, J. B	Sullivan	E
Deniven, E. D	Carlisle	R
Durham, John L	Graysville	R
Duncan, Wm. S	Farmersburg	R
Delashmutt, V. E.	Shelburn	R
Dailey, T. L	Paxton	R
Edwards, C. H	Pleasantville	R
Flemming, Wm. A	Pleasantville	R
Foot, Vilas H.	Farmersburg	R
Hinkle, J. R	Sullivan	R
Higbee, J. L	Sullivan	H
HIGBEE, G. W	Sullivan	H
Hinkle, J. S.	Fairbanks	R
Harper, James A	Shellburn.	R
Harper, J. B	Merom	R
Harper, H. F	Merom	R
Jenkins, R. L.	Carlisle	R
Lisman, W. A	Carlisle	R
Lisman, J. W.	New Lebanon	R
Lowder, C. M	Dugger	R
Matthews, J. M.	Carlisle	R
Mason, T. A.	New Lebanon	R
Murphy, A. M	Sullivan	R
Mayfield, T. B	Pleasantville	R
McDowell, James.	Pleasantville	R
Osborn, S. D	Shellburn.	R
Plew, Geo. F	Hymera.	R
Plew, John H.	Fairbanks	R
Peyton, H. H	Paxton	R
Phillips, J. L	Sullivan	R
Robbins, Wm. M	Sullivan	R
Rusk, J. M	Carlisle.	R
Ross	Sullivan	R
Sharpless, H	Fairbanks	R
Sharpless, M. F.	Sullivan	R
Stone, Wm. O.	Fairbanks	R
Thrall, R. T.	Hymera.	R
Thompson, J. J	Sullivan	R
Troxell, S. P	Paxton	H
Vancleves, R H.	Farmersburg	R
Walters, J. A.	Paxton	R
Whalen, R. M	Carlisle.	R
Weir, A. N	Sullivan	R
Weir, S. D	Sullivan	R
Young, J. N	Carlisle	R

Regular, 48; Homeopathic, 2; Eclectic, 1.

Switzerland County.

Cheever, E. M.	Quercus Grove	R
Clark, R. E.	Mt. Sterling	R
CRAIG, ALBERT G.	Vevay	R
Culbertson, Scott	Moorefield	R
Elfers, Jno	Sugar Branch	R
Freeman, Wm.	Vevay	R
Griffith, A. J	Mt. Sterling	R
Griffith, T. J.	Vevay	R
Holbert, W. M.	Bear Branch	R
Hewett, G. W.	Markland	R
Jameson, J. A.	Patriot	R
Langsdale, J. W	Florence	R
McMillen, Wm	Sugar Branch	R
Olcott, W. S.	Patriot	R
Ormsby, A. P	Vevay	R
Sage, P. S	Vevay	R
Shadday, J. H.	Vevay	R
Simpson, R. G.	Bennington	R
Vanosdol, C. L.	Allensville	R
Vanosdol, J. W.	Allensville	R
Vanpelt, G. W.	Moorefield	R
Woollen, L. J.	Vevay	R

Regular, 22.

Tippecanoe County.

Anderson, J. H.	Colburn.	R
Ackerman, A. C	Lafayette.	H
Baker, Joseph	Stockwell.	R
Baker, Moses	Stockwell.	R
Baker, Mary A	Lafayette.	A
Bates, S. L	Colburn	R
Baugh, S. L.	Farmers' Institute	R
Beasly, Geo. F	Lafayette.	R
Black, G. B	Lafayette.	—
Boyd, B. H	Lafayette.	—
Brown, Wm. C	Transitville	—
Burke, U. A	Lafayette.	R
Burns, G. W	No. 10.	—
Charles, R. E	West Point	—
Charles, Thos. L	Lafayette.	—
Cowdry, J. S	Lafayette.	E
Crider, Geo. W	Transitville	R
Crouse, J. H	Dayton	R
Dartoy, Jackson H	Battle Ground	—
Deinhart, Michael	Lafayette.	—

Tippecanoe County—Continued.

Names.	*Post Office.*	*School.*
Elsworth, J. T	West Point	R
Fickle, J. W	Stockwell	—
Fifield, Mrs. A. P	Lafayette	H
Fox, R. C	Lafayette	—
Fox, S. R	Lafayette	—
Goldsberry, S. S	Montmorency	R
Heath, John H	West Point	E
HALL, J. T	Chauncy	R
Hunt, Cyrus E	Odell's Corners	—
Hiett, George W	Sugar Grove	—
Hupe, Carl	Lafayette	—
Ingersoll, B. F	Lafayette	R
Ingersoll, Joel M	Lafayette	R
Irwin, L. M	Lafayette	R
Jones, Asa F	Lafayette	—
Kearstean, Elizabeth	Lafayette	A
Kincaid, W. S	Clark's Hill	—
Kirkpatrick, G. W	Culvers	R
Keen, D. P	Lafayette	—
Kieper, C. B	Lafayette	—
Koonse, J. P	Lafayette	—
Labarree, Wm	Clark's Hill	R
McKirsey, Wm. M	Octagon	—
McCollister, Chas. E	Lafayette	—
Moffit, Wm. R	Chauncy	R
Nichols, M	Lafayette	—
Ogburn, Job	Montmorency	—
O'Farrell, Frank	Lafayette	R
O'Farrell, R. M	Lafayette	R
Orth, Wm. M	Lafayette	R
Osburn, George A	Lafayette	—
Osburn, Margaret A	Lafayette	—
Perkins, E. E	Lafayette	—
Powers, E. D	Lafayette	R
Presly, N. W	Battle Ground	R
Prettyman, J. T	Stockwell	—
Pyke, ——	Romney	R
Pottel, Christian	Lafayette	—
Rainey, H. W	Lafayette	R
Riddle, H. D	Battle Ground	R
Rush, M. A	Lafayette	R
Rose, T. W	Lafayette	—
Robinson, L. D	Lafayette	—
Seawright, S. R	Lafayette	R
Scott, James A	Odell's Corners	—
Shill, C. W	Lafayette	—
Shucker, Mrs. E	Colburn	A
Simison, John	Romney	R
Simison, John F	Romney	R
Smith, I. M	Lafayette	H
Snyder, Leander	Lafayette	R
Spaulding, Joseph	Lafayette	—
Speitel, H. B	Lafayette	—
Sutton, ——	Romney	—
Swigert, J	Lafayette	—
Trembly, D. G	Clark's Hill	—
Thorpp, J	Transitville	—
Vinnedge, W. W	Lafayette	R
Walker, Wm. S	Lafayette	R
Washburn, S. S	Lafayette	R
Washburn, Geo. W	Lafayette	E
Weaver, C. H	West Point	E
Webster, John C	Lafayette	R
Workman, J. M	Battle Ground	R
Williamson, John A	Lafayette	—
Zearger, Wm. G	Glenn Hall	—
Zount, Silas T	Lafayette	R

Regular, 37; Homeopathic, 3; Eclectic, 4; Accoucheur, 4; not reported, 40.

Tipton County.

Names.	*Post Office.*	*School.*
Armfield, T. O	New Lancaster	R
Austin, Winser	Windfall	R
Blount, Silas		R
Batman, F. M	Tipton	R
Campbell, D. R	Normanda	R
Cooper, John	Sharpsville	—
Collins, G. M	Tipton	R
Doan, N. W	New Lancaster	R
DICKEY, A. S	Tipton	R
Davis, Rachel	Shielville	—
Davis, N. C	Tipton	—
Evans, H. G	Tipton	R
Glass, W. M	Shielville	R
Gossett, Jas. M	Normanda	R
Grove, J. M	Tipton	R
Green, W. A	Kempton	R
Guy, Mrs. M. L	Tipton	P.-M
Hazzard, S. S	Curtisville	R
Hildrup, J. R	Windfall	H
Horine, J. A	Windfall	—
Hall, Margaret	Goldsmith	—
Jessup, John T	Curtisville	R
Lindsay, Jas. P	Sharpsville	R
McAlister, Lewis	Windfall	R
Moore, Mary		—
Newcomer, M. V. B	Tipton	R
Pitzer, A. B	Tipton	R
Philpott, L. W	Hobbs Station	—
Rubush, D. P	Sharpsville	R
Repp, G. R	Goldsmith	R
Somers, J. A	Groomsville	R
Vickrey, A. M	Tipton	R
Vickrey, M. V. B	Tipton	R
Van Nuys, Wm	Tipton	R
Whelchell, T. C	Goldsmith	R
Weaver, Sarah A	Groomsville	—
Wood, Geo. C	Windfall	R
Zeek, F. S	Windfall	R

Regular, 29; Physio-Medical, 1; Homeopathic, 1; not reported, 9.

Union County.

Names.	*Post Office.*	*School.*
Applegate, W	Liberty	E
Edsell, H. P	Billingsville	E
Fosdick, A. C	Liberty	R
Hawley, A. D	College Corner	R
Hawley, H	College Corner	R
Hastings, Z. B	Billingsville	R
Hutchinson, B	Liberty	E
Kell, S D	Liberty	R
McChristy, J. H	College Corner	H
Morris, J. E	Liberty	R
Moore, H. H	Liberty	R
Paxton, U	College Corner	R
Pigman, G	Liberty	R
Seigler, Geo	Liberty	R
Shriner, W. W	Liberty	E
Smith, J. H	Brownsville	R
Squire, A	College Corner	E
Sumpter, A. R	College Corner	E
THOMPSON, E. C	Liberty	H

Regular, 11; Eclectic, 6; Homeopathic, 2.

Vanderburg County.

Names.	*Post Office.*	*School.*
Achilles, F. W	Evansville	R
Allen. S. R	St. Wendell.	R
Alexander, Maria	Evansville	A
Allison, Joseph.	Zipp.	R
Ashford, H. S.	Evansville	R
Armistead, R. A	McCutchansville	—
Barbary, Mrs. C. M.	Evansville	A
Babcock, W. D	Evansville	R
Bacon, C. P	Evansville	R
Bennett, J. F	Evansville	R
Binkley, John F	Evansville	R
Blount, J. F	Evansville	—
Bray, M. J	Evansville	R
Brooks, G. D	Evansville	R
Begley, B. W	Inglefield.	R
Brockenbringer, M. L.	Evansville	A
Bocker, Caroline	German.	A
Bryan, A. H.	Evansville	R
Bryan, T. L.	St. Wendell.	R
Buhmeirer, Lissette	Evansville	A
Caldwell, Matilda	Evansville	A
Carter, E. L.	Evansville	R
Compton, J. W	Evansville	R
Cowden, W. C.	Evansville	H
Carlew, R. M	Evansville	R
Casby, Geo. P.	Evansville	R
Clement, Benj.	Evansville	—
Crevet, Theressa	Evansville	A
Davidson, Wm. R.	Evansville	R
Davis, F. L	Evansville	H
Day, B. J	Evansville	R
Dixon. H. F.	Evansville	R
Doyle, K	Evansville	R
Dow, John L	Evansville	R
Fessinger, John	Union township	R
Fritsch, Ludwig	Evansville	R
Fritsch, W A.	Evansville	R
Failing, Walter.	Evansville	R
Gumberts, A. R.	Evansville	R
Gilbert, George.	Evansville	—
Girowdel, Mrs. A	Evansville	A
Green, A. E.	Evansville	R
Green, W. S.	Evansville	R
Hahn, Mrs	Evansville	A
Hargan, H. C	Evansville	R
Hartloff, Richard	Evansville	R
Hayden, A. M	Evansville	R
Heiman, Anna M.	Evansville	A
Herr, L. S	Evansville	H
Hill, Dora.	Evansville	A
Hodson, Geo. P.	Evansville	R
Holeman, Jefferson.	Evansville	R
Hooker, H. H.	Oak Dam	R
Hutchinson, C. A.	Evansville	—
Jenkins, ——	Fair Play.	—
Jensen, Louisa	Evansville	A
Johnson, George	Evansville	—
Jones, R. N	Evansville	R
Johnson, E. W	Evansville	R
Johnson, L. G	Evansville	R
Kerth, J. H	Evansville	R
Knapp, Charles.	Evansville	R
Kress, Oscar D	Evansville	R
Laval, Wm. J	Evansville	R
Loomis. Chas. A	Evansville	R
Linthoum, Edward	Evansville	R
Macer, Thomas.	Evansville	R
McCoy, P. Y	Evansville	R
Maghee, W. H	Evansville	R
Magon, Daniel	Evansville	—
McDill, J. B	Armstrong	R
Minturn, J. C	McCutchansville	R
McMahon, C. A	Evansville	R
McClurkin, J. C	Evansville	R
McClaren, ——	Evansville	R
Mott, Christiana	McCutchansville	A
Morgan, Mary J	Cypress	A
Montoux, Chas. G	Kasson	R
Mulhausen, M	Evansville	R
Neal, Ed	Evansville	R
Neel, W. D	Evansville	R
Ohlman, W.	St. Joseph	R
Owen, A. M.	Evansville	R
Owen, John E	Evansville	R
Pennnington, J. J	Evansville	R
Phipps, J. M	Evansville	R
Pirnat, John	Evansville	R
Pollard, W. S	Evansville	R
Purdue, Geo. C.	Evansville	R
Ralston, Wm. G	Evansville	R
Riplinger, M. F	Evansville	—
Rodgers, M. F	Evansville	—
Ruark, S	Kratzville	R
Rucker, T. N	Evansville	R
Rose, W. B	Evansville	R
Sawyer, F. W.	Evansville	R
Scott, A. N	Evansville	R
Schleusher, W	Evansville	A
Schmecker, Sophia.	Evansville	A
Schuyler, P. L	Evansville	R
Shultz, Theo	Evansville	H
Sieffert, Elizabeth	Evansville	A
Snell, F. A	Union township	R
Spencer, E	Evansville	R
Steiler, Mary A.	Evansville	A
Stone, T. W.	Evansville	R
Suiter, Wilhelmina	Evansville	A
Tapp, W. J	Evansville	—
Taylor, T. H	Evansville	H
Tilman, M	Evansville	R
Tyrrell, C. C	Evansville	H
Venneman, Robt.	Evansville	R
Vitzdam, William	Evansville	R
Williams. G. S	Evansville	—
Wright, E. D	Evansville	R
Williams. E. S	Fair Play	R
Walker, Edwin.	Evansville	R
WALKER, G. B	Evansville	R
Weinheimer, Mrs. E	Evansville	A
Wilde, C. A.	Evansville	R
Williams, Floyd	Evansville	R
Willing, A. P.	Evansville	R
Yates, G. W	Evansville	—
Young, Geo. M	Evansville	R
Zengler, Barbara.	Evansville	A

·Regular, 84; Accoucheur, 21; Homeopathic, 6; not reported, 14.

Vermillion County.

Barnes, Jas. A	Gessie	R
Bogart, Jno. H	Clinton	R
Eaton, Henry C.	Toronto	R
Flaugher, E. A	Eugene	R
HALL, M. L.	Newport	R
Hall, Wm. S.	Gessie	R
James, H. H.	St. Bernice	R
Johnson, David B	Perrysville	R
Keys, Otis M	Dana	R
Keys, C F.	Dana	R
Kinderman, Alex.	Eugene	R
Mack, Erastus	Hillsdale	E

Vermillion County—Continued.

Names.	*Post Office.*	*School.*
Marlow, Austin	Clinton	—
McMeen, Jas.	Eugene	R
Nebeker, Henry	Clinton	R
Newton G. O.	Toronto	R
Spottswood, E. T.	Perrysville	R
Shepherd, Henry L	Clinton	R
Sheppard, Lewis	Newport	R
Sheppard, Hiram	Dana	R
White, Chas. M.	Clinton	R
Wallace, Jas	Newport	R
Watkins, H. T.	St. Bernice	R
Webb, Jas. B.	Perryville	E

Regular, 21; Eclectic, 2; Not reported, 1.

Vigo County.

Armstrong, W. P.	Terre Haute	R
Alben, Mrs. J. F	Terre Haute	—
Baldridge, John H	Terre Haute	E
Belt, Richard.	Sandford	R
Bennett, S. M.	New Goshen	R
Brown, Theodore F.	Sandford	R
Beckwith, Isaac O	Lewis	R
Brunker, J. W	Pimento	R
Bartmess, Wm. J	Terre Haute	P.-M
Collings, W. O	Pimento	R
CRAPO, JOHN R	Terre Haute	R
Crapo, G. W	Terre Haute	R
Carson, L. E	Prairieton	R
Crawley, J. A.	Nelson	—
Crawley, John B	Terre Haute	R
Crowley, T. N.	Terre Haute	—
Caldwell, H. H	Terre Haute	R
Drake, Thomas G	Prairieton	R
Dolson, J. B	Pimento	R
Dobbs, Wm.	Youngstown	R
Dundon, Mrs. C. A	Terre Haute	A
Eichelberger, W. C	Terre Haute	R
Elder, W. R.	Terre Haute	H
Evinger, J. W	Sandford	R
Forsythe, Mrs. Mary	Terre Haute	R
Ferris, W. W	Terre Haute	R
Foulston, S. W	Terre Haute	R
Gerstmeyer, Chas.	Terre Haute	R
Glover, E. E	Terre Haute	R
Greenhough, T. H	Terre Haute	—
Graham, B. F.	Soonover	R
Gilmore, A. H	Terre Haute	E
Givens, Chas. C.	Lewis	R
Hartley, H. J.	Terre Haute	R
Horn, A. H	Terre Haute	R
Hyde, John	Terre Haute	H
Hickson, G. W	Terre Haute	R
Hall, C. T.	Terre Haute	R
Hunt, T. J	Pimento	—
Hunt, John S	Macksville	R
Hood, T. C	Terre Haute	R
Holloway, Theop'liss.	Fontainette	R
Hanes, David	Terre Haute	E
Hamilton, Mrs. E. W.	Terre Haute	A
Jenkins, W. O	Terre Haute	R
Kuster, C. E	Terre Haute	R
Kenedy, T. W	Lewis	E
King, W. H	Fontainette	R
Kilgon, A. W	Atherton	R
Littlejohn, H. C	Riley	R
Leachman, J. S.	Prairieton	R
Larkins, Edward	Terre Haute	R
Langhead, James T	Terre Haute	R
Lee, W. M	Terre Haute	P.-M
Long, Henry	Terre Haute	E
Link, John E.	Terre Haute	R
Lintner, J. B	Terre Haute	—
Mitchell, J. D	Terre Haute	R
Melton, Seth B	Burnette	E
Moore, Wilmot	Terre Haute	H
Moorhead, T. W	Terre Haute	R
Mattox, W. R.	Youngstown	R
Moore, J. A.	Prairie Creek.	R
Morgan, John H	New Goshen	R
Mann, Henry D	Terre Haute	R
McClain, Leslie.	Terre Haute	R
McJohnson, A. D.	Pimento	R
McLaughlin, J. M	Seeleyville	R
McCorckle, T. H	Edwards	R
McGrew, James E	Terre Haute	R
Nebergall, J. W	Prairie Creek	R
Ogle, Jacob W	Prairieton	R
Phipps, J. J.	Soonover	R
Poindexter, John.	Nelson	R
Pinson, A. J	New Goshen	R
Preston, Samuel C	Terre Haute	R
Pence, Allen	Terre Haute	R
Russell, C. W.	Riley	R
Richardson, S. C	Terre Haute	P.-M
Rogers, F. V	Terre Haute	—
Roberts, W. H	Terre Haute	R
Rauch, Gertrude	Terre Haute	A
Rankin, Mrs. M. J	Terre Haute	A
Roderus, A. K	Terre Haute	A
Semelroth, S. C.	Terre Haute	—
Smith, William.	Riley	R
Stetson, E. F	Terre Haute	R
Swafford, Benj. H	Terre Haute	R
Swap, J. H	Sandford	R
Spain, A. W	Terre Haute	R
Sluss, James G	Riley	R
Shaley, F. W	Terre Haute	R
Stock, L. K.	Lewis	E
Shickle, John A	Terre Haute	R
Stevenson, W. H	Terre Haute	R
Secrest, Mrs. Mary	Terre Haute	A
Stout, Claud	Pimento	—
Stewart, W. H	Terre Haute	R
Schreimer, B	Terre Haute	P.-M
Stancker, Albert	Terre Haute	R
Simminger, Mrs. C	Terre Haute	A
Thompson, J. C.	Terre Haute	R
Tomlin, B. F.	Terre Haute	R
Toby, O. C	Terre Haute	R
Thompson, H. M	Prairie Creek.	R
Treat, H. J	Terre Haute	P.-M
Talbett, J. M	Prairie Creek	R
Teichman, Mrs. Julia.	Terre Haute	A
Willien, Leo J	Terre Haute	R
Watkins, Samuel	Edwards	R
Waters, Moses H	Terre Haute	H
Weinstein, Leo J	Terre Haute	R
Worrell, Jonathan P	Terre Haute	R
Wilson, Mrs. A. L	Terre Haute	P.-M
Welch, Daniel H	Pimento	R
Witty, B. W. F.	Fontainette	R
Willis, S. D.	Terre Haute	P.-M
Warren, L. R	Terre Haute	R
York, — —	Terre Haute	—
Young, Stephen J	Terre Haute	R

Regular, 78; Eclectic, 7; Homeopathic, 6; Physio-Medical, 7.

Wabash County.

Names.	*Post Office.*	*School.*
Ader, Henry	Somerset	R
Blount, R. F	Wabash	R
Brady T. F.	Lincolnville	R
Bricker, Wm.	Lincolnville	E
Barr, J. W.	New Harrisburg	R
Biggerstaff, J. T.	La Gro	R
Bloomer, F. H.	Pleasant View	R
Brown, J. W.	Wabash	R
Brodbeck, G. H.	Roann	R
Carper, A. J.	Liberty Mills	R
Donaldson, E. F	Wabash	R
Dunn, W. A.	Wabash	H
Dicken, J. L.	LaFontain	R
Dicken, C. L.	LaFontain	R
Ellis, C. S.	Wabash	E
FORD, J. H.	Wabash	R
Fish, W. S.	Somerset	E
Goshorn, D. A.	North Manchester	R
Ginther, Daniel	North Manchester	E
Hunter, T. C.	Wabash	H
Hale, M. M.	La Gro	R
Holloway, A. L.	Wabash	E
Jordan, L. W.	Roann	H
Jones, J. H	Roann	R
Jessup, L. F. Miss	Wabash	R
Kidd, G. P.	Roann	R
Kantz, John	Dora	R
Lambert, G. W.	Urbana	E
Lower, M. O.	North Manchester	R
Modracer, Morris	Wabash	R
Minnick, H. R.	Treaty	R
Moore, P. G.	Rich Valley	R
Mumger, W. A.	Liberty Mills	—
Mooney, H. C.	Laketon	R
McGrew, W. H	LaFontain	E
Oneal, Laughlin	Somerset	R
Oneal, Oran	Somerset	R
Renner, J. H.	La Gro	R
Renner, M. E.	La Gro	R
Richards, John	North Wabash	R
Smith, A. J	Wabash	R
Stradly, D. W.	Wabash	R
Smith, D. W. Mrs.	Wabash.	—
Shellhamer, D. C.	Puckerbrush	R
Studley, J. W.	LaFontain	R
Shaffer, Philip	North Manchester	R
Simon, A.	North Manchester.	—
Thomas, A. McD	LaFontain	R
Welchinner, J.	North Manchester	H
Winton, Horace	North Manchester	R
Winton, C. H.	North Manchester	R
Wells, Wm. Y.	Laketon	E
Wale, F. M.	Urbana	R

Regular, 38; Homeopathic, 4; Eclectic, 8; Not reported, 3.

Warren County.

Aborn, Orin	Marshfield	R
Birch, E. R	State Line	R
Brown, Nathan	State Line	E
Burris, S. O.	Carbondale	R
Campbell, L. B	West Lebanon	R
Fleming, Jackson	West Lebanon	R
Fenton, S. C	Pine Village	R
Floners, T. W	Williamsport.	E
Gray, ——	Green Hill	E
Hoffman, C. H	Rainsville	R
Jones, ——	Marshfield.	R
Johnson, Mrs.	Williamsport.	E
Keefer, F. R	Williamsport	R
McMullen, J. W	Pine Village	R
Osburn, C. W.	West Lebanon	R
Osburn, S. N	Rainsville	R
Porter, A. M	State Line	R
Prickett, ——	Johnsonville	E
Roseberry, J. A	Independence	R
Ried, S. M	Independence	R
ROSS, JUSTIN	Williamsport.	R
Stewart, J. C	Marshfield	R
Simmerman, Mrs	Carbondale.	—
Trent, J. H	Johnsonville	E
Vick, W. B	Green Hill	E
Wicoff, R. H	Rainsville	E

Regular, 18; Eclectic, 8; not reported, 1.

Warrick County.

Bradley, John H	Folsomville.	E
Baldwin, J. T.	Lynnville.	E
Brown, A. P	Selvin	R
Beeler, Jerome S.	Booneville	H
Camp, G. H.	Lynnville	E
Camp, J. W.	Lynnville.	E
Coleman, S. A	Chandler	A
Daily, T. J	Tennyson.	R
Daily, Travis G.	Booneville	R
DeForrest, D. A	Booneville	R
Dubois, J. N	Newburgh	H
Davis, Nancy	Lynnville.	A
Dark, Mary	Booneville	A
Edgeington, Jesse	Yankeetown	R
Grim, Simon	Elberfeld	—
Gruber, Robert H	Wilte	R
Graham, J. B.	Lynnville.	R
Hedden, W. C.	Selvin	R
Hedden, G. J.	Selvin	R
Hewins, W. A	Chandler	R
Hunt, Wm. A.	Lynnville.	R
Hopper, Elizabeth	Lynnville.	A
Hammel, John	Elberfeld	R
Hart, L. H	Folsomville.	R
Hoover, P. S	Booneville	H
HARGAN, T. J.	Booneville	R
Jones, Thomas	Lynnville.	R
Jones, L. M.	Tennyson.	R
Keifer, Charles	Elberfeld	R
Keegan, C. J	Canal.	R
Knapp, Louisa	Booneville	A
Lake, Geo.	Newburgh	R
Lamar, H. L	Booneville	H
Mills, W. H.	Folsomville	R
Morganheimer, P.	Elberfeld	R
McVey, W. H.	Selvin	R
McCoy, J. S.	Sumerville	R
McCoy, T. J.	Eby	R
Park, Charles.	Canal.	R
Patterson, P. N.	Booneville	H
Perigo, S. E.	Booneville	A
Quiatt, A.	Folsomville	R
Rusher, E. A	Selvin	A
Slaughter, J. B.	Newberry.	R
Slaughter, W. W	Newberry.	R
Smith, Thomas	Canal.	R
Scales, W. B	Booneville	R
Shaul, Monroe	Booneville	R
Temple, W. R	Selvin	R
Tillman, J. R.	Newberry.	R
Thompson, P. S.	Newberry.	R
Wilson, W	Yankeetown	R
Watson, W. D	Tennyson.	R
Zimmerman, J	Lynnville.	R

Regular, 37; Homeopathic, 5; Eclectic, 4; Accoucheur, 7.

Washington County.

Names.	*Post Office.*	*School.*
Avery, William R	Fredricksburg	R
Baker, T. H. B	Pekin	R
Bare, J. R	Salem	R
Bosley, M. E	Hardinsburg	R
Bradshaw, A. E	Halo	R
Bright, W. H	Martinsburg	R
Barnett, J. T	Hardinsburg	R
Craycraft, Martha E	Rush Creek Valley	A
Child, Royal B	Claysville	R
Crim, Martin	Salem	P.-M
Duff, S. W	Salem	R
Dewees, George W	Fredricksburg	R
Davis, Sicky, Mrs	Bartle	A
Ferree, Isaac	Livonia	R
Harrod, S. H	Canton	R
Hancock, G. S	Campbellsburg	R
Hogsett, J. W	Saltillo	R
Herron, T. W	Little York	R
Hoggatt, M. R	Salem	E
Hon, G. W	Hardinsburg	R
Hudson, L. H.	Little York	R
Hobbs, H. C.	Salem	E
Hall, I. G.	Campbellsburg	P.-M
Layman, J. H	Chestnut Hill	R
MURPHY, C. W	Salem	R
Martin, R. W.	Campbellsburg	R
Moser, J. S	Bartle	R
Maxedon, R. W.	Hardinsburg	R
McCowen, John	Hitchcock's Station	E
McPheeters, John S	Hardinsburg	R
McClintock, Mary E	Bono	A
Mott, Murlino, Mrs	Saltillo	A
Neal, G. L	Salem	R
Neyman, E. M. C.	Saltillo	R
Neyman, H. P	Saltillo	R
Oatley, J. H	New Philadelphia	R
Overman, E. T	Salem	P.-M
Paynter, C. L.	Salem	R
Perkhiser, W. J	Livonia	R
Rathburn, Charles	Salem	R
Roberts, S. A	Fredricksburg	R
Thomas, F. M	Little York	R
Tucker, Thomas M	Salem	R
Schoonover, W. S.	Hardinsburg	R
Spurgeon, A. N.	South Boston	R
Voyles, V. A	Livonia	R
Watts, Mary	Farabee Station	A
Wier, A. G	Kossuth	R

Regular, 37; Physio-Medical, 3; Eclectic, 3; Accoucheur, 5.

Wayne County.

Allen, J. B	Hagerstown	R
Baer, O. P	Richmond	H
Ballard, N. H.	Richmond	R
Ballinger, W. D	Richmond	—
Bell, John S	Dublin	—
Benham, H. R	Richmond	E
Blount, C. N	Hagerstown	R
Bond, C. S	Richmond	R
Boppart, A	Richmond	R
Bowers, Mrs. M. L	Richmond	—
Boyd, H. B	Cambridge City	R
Boyd, S. S	Dublin	R
Brown, Jesse R.	Green's Fork	R
Bunnel, R. W	Green's Fork	R
Canady, N. F	Hagerstown	H
Carter, N. P	Green's Fork	R
Cecil, A. A	Nettle Creek	H
Clark, J. B	Economy	R
Clark, J. [illegible]	Economy	R
Colb[illegible] J. P	Richmond	R
Court[illegible] T	Whitewater	R
Crismond, J. W	Abington	E
Darnell, W. J	Centreville	—
Davis, T. H.	Richmond	H
Day, Geo. Ward	Dublin	H
Dwiggins, M. F.	Richmond	R
Emmons, J	Richmond	H
Furnass, Robert F	Richmond	H
Gabel, H	Abington	—
Gordon, G. C	Centreville	—
Graham, W. B	Cox's Mill	E
Grosvenor, E. B	Richmond	H
Grffin, W. T	Whitewater	E
Hadley, Edwin	Richmond	R
Haines, J. W	Richmond	H
Harris, J. S.	Fountain City	R
Harrold, C. N	Richmond	P. M
Haynes, M. H	Richmond	R
Helm, W. M	Williamsburg	E
HIBBERD, JAS. F	Richmond	R
Hobbs, M. W	Richmond	R
Howells, Joseph	Richmond	H
Hubbard, Elias.	Dublin	—
Huff, O. N	Fountain City	R
Intzi, Joseph	Richmond	R
Jackson, Elma	Cox's Mills	A
Jay, Wm. C.	Richmond	E
Johnson, L. C	Fountain City	R
Kelsey, L. S	Richmond	R
Kersey, C. H	Richmond	R
Kersey, S. H	Centreville	R
King, J. E	Richmond	R
King, Wm. F	Centreville	R
Loar, A.	Richmond	P.-M
Martin, D. C	Richmond	—
Marshall, J. V	Whitewater	R
Marting, Maria E	Richmond	A
Mauk, Jno. R	East Germantown	R
McDivitt, E G	Richmond	H
McSimpson, John	Richmond	—
McTaggart, Chas.	Dublin	E
Mendenhall, W. O	Richmond	R
Mitchell, S. R	Richmond	R
Moore, C. H	Richmond	R
Moore, S. H.	Green's Fork	R
Morrow, Sarah J	Richmond	R
Muller, Bernard	Richmond	R
Munger, Jas. E.	Abington	R
Neff, W. W	Centreville	E
Ortman, Anna	Richmond	A
Pennington, Joel.	Milton	R
Prezinger, J. W	Richmond	—
Reed, Wilson.	Centreville	R
Rife, J. J	Boston	R
Robbins, G. W	Economy	R
Rutledge, J. W	Cambridge City	R
Rusk, Anna E	Richmond	P.-M
Schiltuck, V. E	Economy	—
Shoff, J. S.	East Germantown	R
Southworth, A	Dublin	H
St. Clair, J. W	Milton	R
Stonebraker, J. H	Dalton	R
Study, Joseph N	Cambridge City	P
Summers, J. B	Milton	R
Swallow, Eph.	East Germantown	R
Swallow, Jas. E	Abington	R
Sweeney, J. F	Milton	R
Taylor, T. W	Webster	R
Taylor, J. E	Richmond	R
Taylor, L. B	Dublin	R
Taylor, L. P	Williamsburg	E
Teague, I. P	Richmond	H
Tennis, Israel	Richmond	R
Thomas, Mary F	Richmond	R
Thomas, Owen	Richmond	R
Thurston, E. H	Hagerstown	P.-M
Thurston, J. M	Hagerstown	P.-M
Tillson, Hosea	Centreville	R
Ward, J. B	Richmond	—
Wayman, J. V	Cambridge City	R
Waring, Wm. P	Richmond	R
Weist, J. R	Richmond	R
Williams, Wm	Whitewater	E
Witmer, B. M.	Milton	E

Regular, 60; Homeo., 13; Physio-Medical, 5; Eclectic, 11; Accoucheur, 3; not reported, 12.

Wells County.

Names.	*Post Offive.*	*School.*	*Names.*	*Post Office.*	*School.*
Bonse, Francis J.	Nottingham	E	Johnson, E M.	Dillman	E
Bugh, John W	Bluffton	E	Kirth, R. W.	Keystone	E
Bruce, John H.	Bluffton	R	Kister, R. S.	Bluffton	E
Ballard, Freeman E	Dillman	R	Lanning, J. P.	Nottingham	R
Bergman, Noah	Loclin	E	Mason, Leonidas	Bluffton	R
Cassill, Geo. W.	Keystone	E	Metts, J. I.	Ossian	R
Cummins, B. F.	Bluffton	R	Metts, A. H.	Ossian	R
Connett, L. W.	Keystone	R	Morrison, ——	Ponito	R
Crum, John W	Barber's Mills	R	Murray, L. E.	Zanesville	R
Davenport, E. P.	Craigville	E	Melsheimer, C. T.	Bluffton	R
Doster, Hezekiah	Ponito	R	Maddox, L. E.	Keystone	R
English, J. C.	Bluffton	R	Milchy, Wm.	Lancaster T'p.	P.-M
Fulton, J. C.	Murray	R	Newman, M. N	Ossian	R
Fulton, G. E.	Bluffton	R	Puckett, T. J.	Keystone	E
Fitzpatrick, J. D.	Vera Cruz	E	Shrader, D	Murray	E
GORRELL, A. G	Bluffton	R	Spaulding, L. A.	Bluffton	R
Garrett, F. W.	Liberty Center	R	Weer, Mrs. Mary	Bluffton	E
Gregg, Henry	Bluffton	R	Weer, H. H.	Bluffton	E
Horton, Theodore	Bluffton	R	Walser, J. A.	Vera Cruz	E
Horton, E R.	Bluffton	E	Waldron, R. A.	Nottingham	R

Regular, 24; Eclectic, 15; P.-M., 1.

White County.

Aydilotte, Wm	Badgers Grove	R	McAllister, J. W	Idaville.	R
BUSHNELL, S. B	Monticello	R	Medaris, John	Brookston	R
Ballou, A. B	Burnettsville	R	McKillup, Jane	Wolcott.	A
Baugh, W. J	Chalmers	R	Palmer, R. B	Idaville.	E
Barcus, Eliza.	Dern	A	Pritchett, Lamin	Idaville.	A
Clark, A. J	Monticello	R	Robison, F. B.	Monticello	E
Cowgen, S. R	Monticello	E	Ramsey, L	Monon	R
Clayton, Geo. R	Monon	R	Reed, J. T	Monon	R
Dern, A. J.	Dern	E	Spencer, Wm	Monticello	R
Delcell, R. M.	Reynolds	R	Scott, Caleb	Monticello	P.-M
Grant, F. A.	Wolcott.	R	Smith, J. S	Brookston	R
Henry, L. W	Burnettsville	E	Sluyton, S. D	Reynolds	E
Holloway, J. H.	Monticello	E	Small, H. E.	Wolcott.	E
Jones, A. B.	Burnettsville	R	Smith, H. N	Wolcott.	—
Kent, M. C	Chalmers	E	Welty, Isadore	Buffalo	P.-M
Kelly, D. M.	Brookston	R	Wittenberg, Caroline.	Reynolds	A

Regular, 16; Accoucheurs, 4; Eclectic, 9; Physio-Medical, 2; not reported, 1.

Whitley County.

Ammerman, D	Columbia City	H	Linville, Lewis M	Columbia City	R
Criswell, John F	Churubusco.	R	Louder, Christian	Larwill	R
Coyle, Wm. Henry	Etna	R	Magers, F. M	Churubusco.	E
Egolf, Harvey M	Collamer	R	Marshall, Daniel M	Columbia City	R
Eberhardt, E. M	South Whitley	R	Merriman, Elijah	South Whitley	R
Eckman, G. W	Coesse.	R	Mitten, Allen P	Columbia City	R
Grizier, F. G	Collins	R	Richards, John R	Laud	E
Ireland, Martin	Columbia City	R	Scott, J. A	Etna	R
Kirkpatrick, Dan'l A	Larwill	R	Squires, James	Churubusco.	R
Kithcart, Nathan I.	Columbia City	R	Webster, David E	Larwill	R
Koontz, Sylvanus	Laud	R	Webster, Monroe.	South Whitley	R
LaFollette, T J	South Whitley	R	Winger, N. R.	Coesse.	R
LAWRENCE, I. E.	Columbia City	R	Williams, Chas. S	Columbia City	R
Linville, David.	Columbia City	R	Weber, Wm.	Columbia City	R

Regular, 25; Homeopathic, 1; Eclectic, 2.

RECAPITULATION OF PHYSICIANS.

Accoucheurs	301
Eclectics	469
Homeopathics	199
Physio-Medicals	111
Regulars	3,337
Not reported	354
Total	4,771

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